

Slouching Towards Utopia?: An Economic History of the Twentieth Century¹

I. My Grand Narrative

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1.0: Economic History and the Long 20th Century

The Long 20th Century² began around 1870 and ended in 2016.

In my view, the most important thing about the history of the Long 20th Century is that its principal axis of was *economic*. Its history is best viewed as primarily not one of political or military events and crises or of cultural efflorescences and diffusions. It is best viewed as one of extraordinary and progressive changes in how and what we do to produce and distribute the necessities, conveniences, and luxuries of life from the resources that nature has granted us.³

When the Long 20th Century started in 1870, the overwhelming bulk of humanity was still so malnourished as to be constantly hungry, so ill-clothed as to be (in climates not in near-equatorial lowlands at least) often cold, so ill-sheltered as to be frequently (in non-arid climates, at least) wet. Most members of humanity had good reason to fear that it might be difficult to get their 2000 calories a day next year, and many had good reason to fear that it might be difficult to get their 2000 calories a day next week. When it ended in 2016, those fears were gone for most of humanity⁴—it was a scandal that they remained for a significant portion. When it

ended in 2016, somewhere between the top quarter and the top three-quarters of the human were wealthier than previous eras' kings.⁵

That the principal axis of any single century's history should turn out to be *economic* was certainly unusual, if not absolutely unprecedented. Humanity has had a lot of history: from the acquisition of language and the radiation from Africa up through the invention of writing to votes for women and nuclear weapons. In its raw form, history is one damned thing happening after another—and often many overlapping things happening at once. We take these damned things and put them in an order and using a framework that we find to be useful to us.

Why we write our histories in the way we do—putting things in the orders as we do and using the frameworks as we do is not clear to me.⁶ It is clear to me that we do use the conventions of narrative to shape the orders in which we put things in history because we are narrative thinkers: story-telling animals.⁷ And it is clear to me that we do choose as the central themes the things that we do because they are the overlapping set both of interest to us and that made a difference for how people's lives were and changed in the period covered.

There are thus lots of kinds of histories to write. But it has been very rare for the *economic* to be the focus of any history of any single century. It has been more than rare—it has been unprecedented—for the *economic* to be where in any single century the changes that made a difference (or *the* difference) that we care about happened.

For example, if you are telling a story of the history of the sixteenth century, you are more likely than not to focus on one or more of three things:

1. Martin Luther and Jean Calvin's Protestant Reformation,⁸
2. The Spanish conquest of the Americas,⁹ or
3. The rise of the Shāhān-e Gūrkānī—what we in English call, for some reason, the Moghul Empire—in the Indian subcontinent.¹⁰

Perhaps you add a couple more: Sengoku Period Japan?¹¹ the expansion of the Ottoman Empire under Sultans Selim the Grim, Suleiman the Lawgiver, and Selim the Sot?¹² the coming of the slave trade to West Africa?¹³ or perhaps something else?. Those are the axes of the history of the 1500s: religion, expansion, and conquest. There would be some reference to the economy. But those would be background.¹⁴ And that would be true of most centuries.

1.1: Economic Growth and Change Before 1870

This is not to say that there was no economic change before the commercial revolution that started in 1500 or so¹⁵ or before the post-1700 Industrial Revolution Age of the spinning jenny, power loom, steam engine, coal mine, and iron works.¹⁶ The windmills, dikes, fields, crops, and animals of Holland in 1700 made the economy of its countryside very different indeed from the thinly-farmed marshes of 700. The ships that docked at the Chinese port of Canton had much greater range and the commodities loaded on and off them had much greater value in 1700 than in 700. And both commerce and agriculture in 700 was far advanced in its technology beyond that of the first farmers of 8000 BC or so. But that pre-industrial Agrarian-Age technological progress led to little visible change over one or even several lifetimes.

Growth economists¹⁷ make truly heroic assumptions to construct very rough estimates of a quantitative index of the value of the human race's collective knowledge of technology and organization in the broadest sense—the value of the ideas about how to manipulate nature, about what people find useful for life or entertaining or useful for status, and about how humans either as individuals or production teams or societies can productively organize to make and distribute.

Set our index of the quantitative index of the global value of human knowledge equal to a value of 1 back 10000 years ago, at the end of the Gatherer-Hunter and the beginning of the Agrarian Age.¹⁸ Then by the year 1 this value index stood at 3.5. By the year 1500 the index of the value of knowledge stood at 4.7: given similar resources, because of more knowledge about how to use nature and organize humans one worker in the year 1500 could produce things of the value it would have taken 4.7 typical workers of 8000 BC to produce.

This is an impressive change. And, indeed, from the standpoint of 8000 BC—possibly able to make felt but not to spin or weave, and probably not yet reliably able to turn barley porridge into beer—the technologies of the year 1500 on the level of Ming pottery or the Portuguese caravel or the wet-cultivation rice seedling do look impressive. But it took enormous spans of historical time for the invention and diffusion of these technologies to be accomplished. Calculating the average rate of growth of the value of the knowledge gets us a growth rate of 0.02% per year—0.5% per generation—for the entire span years from 1 to 1500, and thus an

average population growth rate of 0.06% per year—1.5% per generation—as increases in technological prowess were soaked up by higher populations and thus greater resource scarcity. There were indeed changes in humanity’s economy—how people made, distributed, and consumed the material necessities and conveniences of their lives. But they became visible only in what Fernand Braudel called *the long run* (but a historical rather than the economists’ theoretical *long run*)¹⁹—before it could come into focus as a potential principal axis.

And—this I need to especially stress—when, before 1500, or before 1800, or even before 1870, you did look at *the long run*, you saw that improvements in technology and productive power by and large did little but raise the numbers of the human race, not its material standard of living.

1.2: “Subsistence” Societies in the Agrarian Age

Back then in the Agrarian Age we humans were desperately poor.²⁰ We ate a much less balanced diet—we were perhaps four inches shorter at adulthood than people are today (or, indeed, were in the gatherer-hunter days back before agriculture and herding). Back then we spent a lot of time desperately hungry and anxious: getting 2000 calories a day plus essential nutrients next year, or perhaps even next week, was a real challenge for many if not most. That made us a subsistence-level society.

What do I mean by “subsistence-level society”? Look at it this way:

1. Adult height had been—we think—an average of about 5’9” for males and 5’6” for females back in the Gatherer-Hunter Age. With the coming of the Agrarian Age adult populations began to shrink, reaching levels perhaps 4 inches shorter. Helping your children grow to be strong is one of the principal goals of every parent. Societal expectations are very strong that parents do this: Were I to have fed my children a diet that would have led to average adult height being 5’5” for sons and 5’2” for daughters, Alameda County Child Protective Services would have come and taken my children away.
2. Population growth rate in the agrarian age was 1.5% per generation, 2.03 children per mother surviving to reproduce. We know that in a well-nourished non-subsistence population without artificial means of birth control that

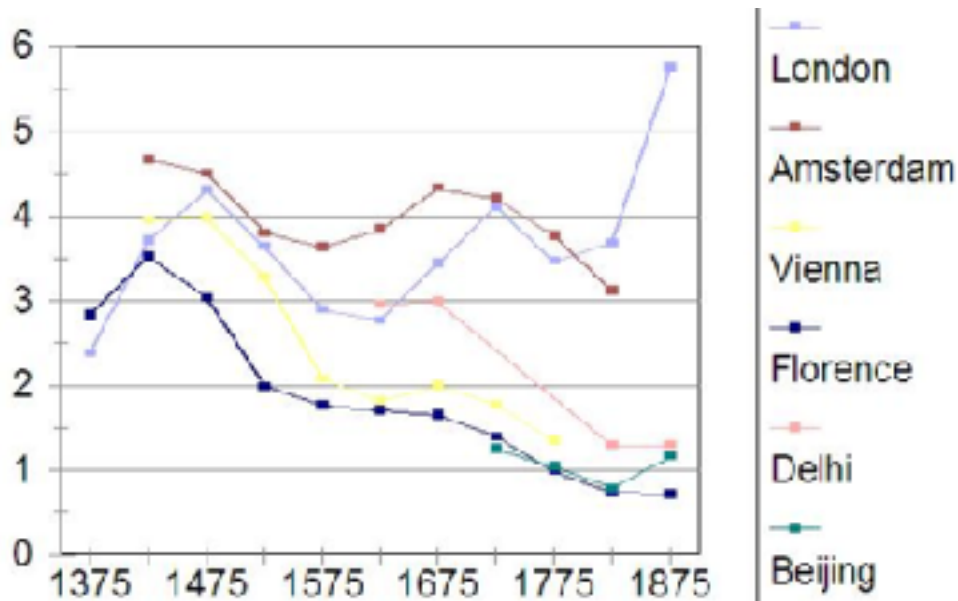
number is more like 3.5. That means that parents saw about 2 out of 5 of their children who would otherwise have survived to reproduce die or never be born from causes connected with poverty. Since keeping your children from dying is the first and highest goal of every parent, that is an index of how much pressure from material want humanity found itself under during the Agrarian Age.

Over the millennia 1.5% population growth per generation adds up: the human race expanded from perhaps 5 million people in 5000 BC to perhaps 1.2 billion in 1870. But, still, a typical woman spent perhaps 20 years eating for two: nine pregnancies, six live births, three children surviving to age five, life expectancy at birth under and perhaps well under 30. And all were likely to see at least half of their children die before they did.²¹

We can use what information has been laboriously compiled to gauge living standards and their improvement. Figure 1.1 reports what we think we know about the wages received by typical unskilled urban Eurasian laborers from 1375 to 1875 in six major cities: Florence, Italy; Vienna, Austria; Amsterdam, Holland; London, England; from 1625 Delhi, India; and from 1725 Beijing, China. Real wages in 1375 start relatively high in Europe: it is the aftermath of the 1346-8 Bubonic Plague that wiped out at third or so of Europe's population.²² But population then recovers and raise ahead of increasing technological knowledge, with urban wages falling throughout the middle of the millennium.²³

Why did the growth of knowledge not produce higher standards of living for the overwhelming majority unlucky enough to be at the bottom of the social status pyramid? Because human fecundity worked faster than human discovery. There were more people among whom the globe's resources had to be shared—2.5 times as many in 1500 as in the year 1—nearly all that extra technological and organizational knowledge in the agrarian age went to compensate for the fewer natural resources *per capita* at our disposal. Thus the *economic* remained a slowly-changing background in front of which history—cultural, political, social—took place.

Figure 1.1: Subsistence Ratios for Unskilled Urban Eurasian Laborers, 1350-1900²⁴



Changes sped up after 1500. When the Long 20th Century began, in 1870, our economists' heroic-assumptions index of the value of knowledge index stood at 16 for the 1.3 billion people alive then. But human life was still overwhelmingly, in Thomas Hobbes's phrase: "nasty, brutish, and short".²⁵ The Agrarian Age that had begun with the development of agriculture and the domestication of the goat 10000 years before was still alive and well in 1870.²⁶

1.3: The Explosion of Economic Wealth

It was only in the Long 20th Century that things became very different.

After 1870 came the explosion. Our 7.5 billion people today have a global value of knowledge index of 420. The value of knowledge about technology and organization grew at an average rate of 2.3% per year over the Long 20th Century. It is still growing.

The Long 20th Century thus saw the material wealth of humankind explode beyond all previous imagining: we—at least those of us who belong to the upper middle class and live in the industrial core of the world economy—are now far richer than the writers of previous centuries' utopias could imagine.

From the productivity-prosperity angle, the Long 20th Century was the century in

which the value of human knowledge exploded fast enough to bring the typical human family out of the era in which its most urgent and important problem was to acquire for the next year—or the next week—enough food that they were not desperately hungry,²⁷ enough shelter that they were not wet, and enough clothing (in climates far from the equator at least) that they were not cold.²⁸

From the biological-social angle, it was the century in which it ceased to be the case that the typical woman spent twenty years eating for two—pregnant or breastfeeding. Today, it is more like four years. And it was the century in which we stopped watching more than half our babies die in miscarriages, stillbirths, and infant mortality—and stopped watching more than a tenth of mothers die in childbed.

From the technological-sociological angle, it was the century of the industrial research lab and the corporations and communities of engineering practice that supercharged economic growth, of cheap ocean and rail transport that destroyed distance as a cost and brought economies all over the world cheek-by-jowl, of submarine and land telegraph and later other communications links that allowed us to talk across the world in real time.

From the international political-economic angle, it was two things. It was the century in which the United States of America was a superpower, a hyperpower, a *hegemon*²⁹. And it was the century in which there were three decisive decisions about how human political-social organizations would be ordered. It was decided that there would primarily be nations rather than empires.³⁰ It was decided that there would be primarily economies of large oligopolistic firms ringmastering value chains rather than of either small atomistic perfect competition or direct state control.³¹ And it was decided that political orders would be primarily legitimated, at least notionally, by elections with universal suffrage³² rather than the claims of plutocracy, tradition, “fitness”, leadership charisma (usually in the service of the exaltation of a particular largely-fictitious *ethnos*), or knowledge of a secret key to historical destiny.³³

1.4: John Stuart Mill’s Assessment

U.C. Davis’s Greg Clark says that: “The basic outline of world economic history is surprisingly simple. It can be presented in one diagram” of one big change:³⁴

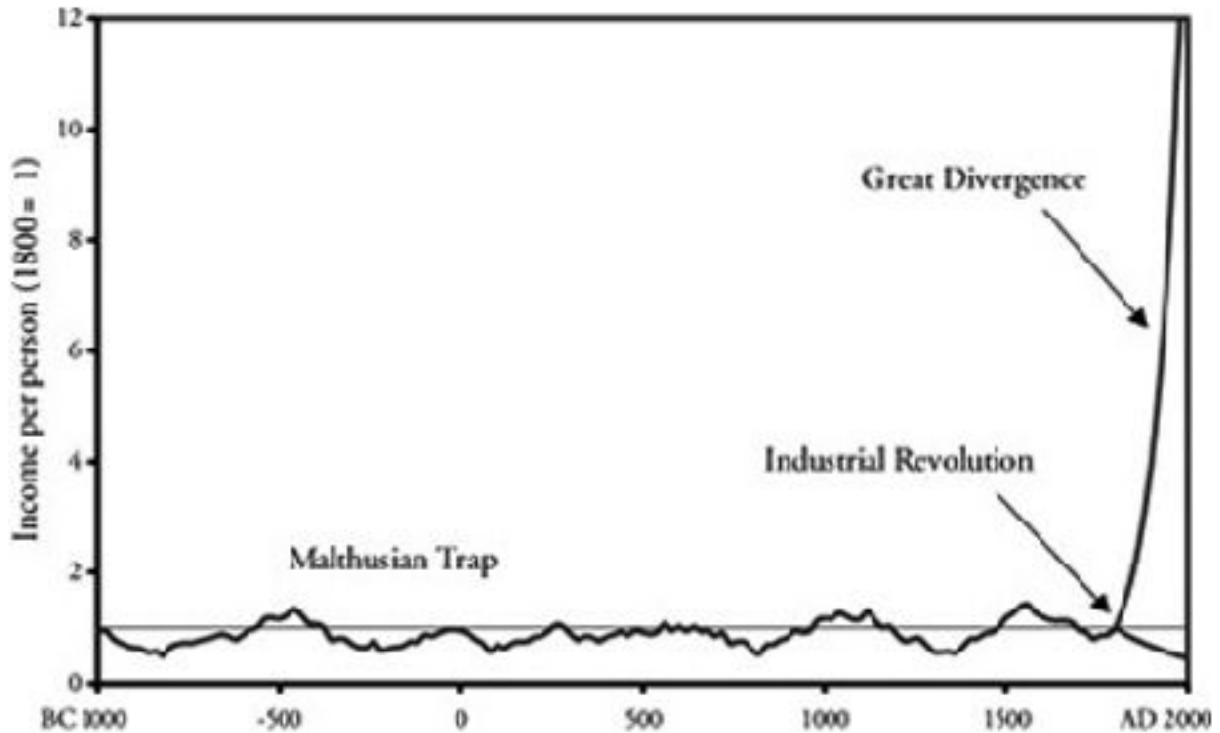


Figure 1.1 World economic history in one picture. Incomes rose sharply in many countries after 1800 but declined in others.

Clark dates that big shift to 1800, and writes of how it was the British Industrial Revolution of 1730-1870 that “changed forever the possibilities for material consumption.” I think I disagree. Yes, there were signs as of 1870 that things were definitely changing. Yes, the British Industrial Revolution of the 18th and 19th centuries had been a big deal. Yes, technology was advancing faster than ever before.

But I believe it is more likely than not that 1800 was not the watershed—that the watershed came later.³⁵ As of 1800, or even 1870, technological advance had not yet been rapid enough to outrun human fecundity. Only when we became rich enough to afford to have fewer children and when technological advance took its further upward leap in growth after 1870 did the big change come. It is, I think, more likely than not the process of Modern Economic Growth that began in 1870 rather than the British Industrial Revolution that began in 1730 that marks the true watershed.

Now the 18th and 19th centuries did see, for the first time, productive capability begin to outrun population growth and natural resource scarcity. By the last quarter of the nineteenth century, the average inhabitant of a leading economies—a Briton,

a Belgian, a Dutchman, an American, a Canadian, or an Australian—had perhaps twice the material wealth and standard of living of the typical inhabitant of a pre-industrial economy. Yet that was not enough to be a true watershed.

Back at the start of the Long 20th Century John Stuart Mill, Britain's leading economist, leading moral philosopher, and one of its leading imperialists and rulers of the empire as a former India Office bureaucrat, was putting the finishing touches on the final edition of the book that people then looked to to learn economics: *Principles of Political Economy, with Some of Their Applications to Social Philosophy*. His book and his thought gave due attention and place to the 1730-1870 era of the British Industrial Revolution. Yet in the year 1870 he looked out on what he saw as a poor and miserable world. "Hitherto", he wrote, looking at the world and at the Great Britain and Ireland of his day:

it is questionable if all the mechanical inventions yet made have lightened the day's toil of any human being. They have enabled a greater population to live the same life of drudgery and imprisonment, and an increased number of manufacturers and others to make fortunes. They have increased the comforts of the middle classes...³⁶

Denser populations, more and richer plutocrats, a larger middle class—those were all the fruits Mill saw of the 1730-1870 Industrial Revolution. Humans in 1870 were still, he saw as he looked at his world and his country, under the harrow of Malthus: There were few resources, too fertile a population, and too slow technological progress for the world to be anything other than constantly near the edge of famine.³⁷

Whatever possibilities for a better world existed in the womb of better technology were stillborn. Improvement in standards of living led to more fertility—women better-nourished could ovulate more reliably—and lesser mortality—children better-nourished had less-compromised immune systems. Hence population grew faster. And as population grew faster resources *per capita* became scarcer. Malthusian equilibrium.

One word in Mill's paragraph stands out to me: *imprisonment*.

The world Mill saw as of 1871 was not just a world of drudgery—a world in which humans had to work long and tiring hours at crafts and tasks that came nowhere near to being sufficiently interesting to engage the full brainpower of an East African Plains Ape. The world Mill saw was not just a world in which most people were close to the edge of being desperately hungry, and were justifiably anxious about where their 2000 calories a day were going to come from next year—or net

week. The world Mill saw was not just a world of low literacy—where most could only access the collective human store of knowledge, ideas, and entertainments partially and slowly. The world Mill saw was a world in which humanity was *imprisoned*: not free, in a dungeon, chained and fettered.³⁸

That is how things were back at the start of the long twentieth century.

1.5: The World Economy Today

Flash forward to the end of the Long 20th Century: November 8, 2016, the day the U.S. ceased to be the world's paramount and—largely—trusted superpower, the day it ceased to be the leader in the enterprise of global political economic cooperation, the day it ceased to be the Kindlebergian *hegemon*, the day it ceased to be the primary exemplar for the world as to how to grasp the possibilities for human betterment.

The world then at the end of the Long 20th Century was thus inconceivably, remarkably different from that John Stuart Mill had seen at its start. The technologies developed and diffused across the globe from 1870 to 2016 had not merely “enabled a greater population to live the same life of drudgery and imprisonment”. In 1870 the daily wages of an unskilled male worker in London, the city then at the forefront of world economic growth and development, would buy him and his family about 5,000 calories worth of bread each. That was progress: in 1800 the daily wages would have bought him and his family perhaps 4000 calories, and in 1600 3000 calories.

Today the daily wages of an unskilled male worker in London would buy him 2,400,000 wheat calories: nearly 500 times as much.

Now the average inhabitant in London today at the end of the Long 20th Century is not 500 times as well-off in a material goods-and-services sense as his or her predecessor at its beginning. The number to keep in your head is probably something more like twenty-five: a twenty five-fold multiplication of real income and wealth.

Back before 10000 years ago humans were overwhelmingly gatherers and hunters.³⁹ From 10000 to 250 years ago humans were overwhelmingly farmers and craftsmen. We were farming, herding, spinning and weaving, cleaning, digging,

smelting metal and shaping wood, assembling structures largely by hand with some aid from simple machines—doing “in the sweate of thy face shalt thou eate bread” things.

Such an amplification of material wealth has carried with it not just quantitative changes in what we consume but quantitative changes in how we live. Who today could find their way around a kitchen of a century ago? Before the coming of the electric current and the automatic washing machine, doing the laundry was not an annoying but minor chore but was instead a major part of the household’s—or rather the household’s women’s—week. A household a century ago that had the ability to purchase the same amount of that day’s consumption goods as the average household today was seen as extraordinarily affluent.

Today few among us are gatherers, or hunters, or farmers. Hunting, gathering, farming, herding, spinning and weaving, cleaning, digging, smelting metal and shaping wood, assembling structures by hand—those are now the occupations of a small and dwindling proportion of humans. And where we do have farmers, herdsmen, manufacturing workers, construction workers, and miners, they are overwhelmingly controllers of machines and increasingly programmers of robots. They are no longer people who make or shape things—*facture*—with their hands—*manu*.

What do modern people do instead? Increasingly, we push forward the corpus of technological and scientific knowledge. We educate each other. We doctor and nurse each other. We care for our young and the old. We entertain each other. We provide other services for each other to take advantage of the benefits of specialization. And we engage in complicated symbolic interactions that have the emergent effect of distributing status and power and coordinating the 7.4-billion person division of labor of today’s economy. We have crossed a great divide between what we used to do in all previous human history, and what we do now.

We today are not just better at making the goods of a century ago. We today also have the new and powerful technological capability to make an enormously expanded range of goods and services: from streaming entertainment services—the audio and videocassettes, CDs, and DVDs which wowed us less than one generation ago are now obsolete—and antibiotics to airplane flights and plastic bottles. We today would feel—we would be—enormously impoverished if by some mischance our money incomes and the prices of commodities remained the same, but if we were at the same time forbidden to use any commodity not produced in 1870. This expansion in the range of what we can produce is an enormous

additional multiplier of material well-being. The magnitude of the growth in material wealth has been so great as to make it nearly impossible to think about measuring.

1.6: The “Limit of Human Felicity”

Perhaps the third best selling novel in the United States in the entire 19th Century was *Looking Backward, 2000-1887*, by Edward Bellamy.⁴⁰ Bellamy was a populist and—although he rejected the name⁴¹—a socialist: he dreamed of a utopia created by government ownership of industry, the elimination of destructive competition, and the altruistic mobilization of human energies in a way analogous to his vision of the North’s collective effort to end slavery in the Civil War. Technological and organizational abundance would then generate a society of abundance, without want and the societal problems poverty—or even a lack of abundance—generated. He therefore decided to write what he called his “literary fantasy, a fairy tale of social felicity” as a “hanging in mid-air, far out of reach of the sordid and material world of the present... cloud-palace for an ideal humanity”. Therefore he has his narrator-protagonist thrown forward in time from 1887 to 2000 by an unconvincing plot device, and there he marvels at a well-working rich society.⁴²

In *Looking Backward* the narrator-protagonist thrown forward in time to 2000 hears the question, “Would you like to hear some music?”

He expects his hostess to play the piano—a social accomplishment of upper-class women around 1900. To listen to music on demand then, you had to have—in your house or nearby—an instrument, and someone trained to play it. It would have cost the average worker some 2400 hours, roughly a year at a 50-hour workweek, to earn the money to buy a high-quality piano. Then there would be the expense and the time committed to piano lessons.

Today? To listen to music-on-demand in your home—or, indeed not in your home but wherever you happen to be? The labor-time value of a Steinway piano may have only halved when measured in average worker-hours. But if what you value is not the piano itself but the capability of listening to music at home, the cost has fallen from 2400 average worker-hours a century ago to... what? What share of the cost of buying and operating our smartphones do we allocate to granting us the capability of listening to music on demand? 1/5? That gets us down from 2400 average worker-hours to 2.

So when we calculate the increase in material wealth, do we count the halving of the labor-time price of the commodity which is the Steinway piano? Or do we count the 1200-fold decrease in the real labor-time price of the capability of listening to piano (and all other kinds of) music? I think it is clear that we do the second.

Bellamy's narrator-protagonist answers "yes" to the question "would you like to hear some music?" But his hostess does not then sit down at the pianoforte to amuse him and exhibit her ladylike domestic accomplishments. Instead, Bellamy's narrator-protagonist is stupefied to find his hostess "merely touched one or two screws," and immediately the room was "filled with music; filled, not flooded, for, by some means, the volume of melody had been perfectly graduated to the size of the apartment. 'Grand!' I cried. 'Bach must be at the keys of that organ; but where is the organ?'"

He learns that his host has dialed up, on her telephone landline, a live local orchestra playing in the city, and she has put it on the speakerphone. In Bellamy's utopia, you see, you can dial up a local orchestra and listen to it play live.

Moreover, you have a choice: you can dial up one of four orchestras currently playing.

Bellamy's narrator's reaction?

If we [in the nineteenth century] could have devised an arrangement for providing everybody with music in their homes, perfect in quality, unlimited in quantity, suited to every mood, and beginning and ceasing at will, we should have considered the limit of human felicity already attained...

Think of that: *the limit of human felicity*.

To Edward Bellamy—a self-described utopian visionary, a late-nineteenth century minister's son from western Massachusetts—a landline that could dial up any of four currently-playing orchestras is "the limit of human felicity..." What if Edward Bellamy's narrator-protagonist could see our recorded and streaming entertainment industries today? Would his heart stop?

Yet we today do not think we have attained *the limit of human felicity*. Indeed, when we think about what is marvelous and wealthy of our civilization, we do not think of our ability to cheaply listen to high-fidelity go-anywhere listen-to-anything music as a remarkable or even a notable part of our economy.

There is a broader lesson. Many technological inventions of the past century have transformed experiences that were rare and valued luxuries—available only to a rich few at great expense at relatively rare performances of the symphony or the opera—into features of modern life that we take so much for granted that they would not make the top twenty or even the top 100 in an ordered list of what we think our wealth consists of us. If Edward Bellamy could see us, he might see us like we would see a civilization in which everyone had courtside Golden State Warriors tickets on the refrigerator door for anyone wandering by to use, or a basement filled with boxes upon boxes of gem-quality diamonds or *premier cru* wines or designer dresses or Tesla Roadsters, all largely ignored because no one could find a use for them or thought of them as in any way very interesting.

If you asked Edward Bellamy—or any other nineteenth-century or earlier sketcher of utopias—whether we here today have the knowledge of technology and of productive organization needed to provide at least the material abundance needed to build a utopia, they would all say “of course”. And they would in turn ask of us why we do not recognize that those of us in the middle and upper classes of the industrial economies have, in material well-being at least, reached or gone well beyond what they would have regarded as *the limit of human felicity*.

And yet. We today—even the richest of us—rarely see ourselves as so extraordinarily lucky and fortunate and happy.

Today, at least at the bleeding edge of the urban North Atlantic and East Asia today, few focus on making more of necessities *because for the first time in human history there is more than enough*. There are enough calories that it is not necessary that anybody need be hungry. There is enough shelter that it is not necessary that anybody need be wet. There is enough clothing that it is not necessary that anybody need be cold. And enough stuff to aid daily life that nobody need feel under the pressure of lack of something necessary. We are no longer in anything that we could call “the realm of necessity”. So we humans ought to be in “the realm of freedom”, should we not?

1.7: Only on the Escalator to Modernity

And yet. There are still 700 million people in the world living on less than \$2 a day, which puts them with roughly half the material standard of living of the

typical propertyless male laborer and his family in Britain in 1700. A great many people in what is a very rich world do not see many of the fruits of our cornucopia. They have not yet reached “modernity”.

And yet. Things are rapidly getting better in terms of the material wealth of most of the world’s non-rich. Those among the world’s population who live in countries that had been left behind are now, as Lawrence Summers noted and predicted a generation ago, “solidly on the escalator to modernity”.⁴³

That our income and wealth across the globe is so unevenly distributed is a scandal and a reproach. Of the 7.4 billion people alive in the world today, at least 15% still live lives that, save for public health and antibiotics and their likely access to the village smartphone, are hard to distinguish from the lives of our pre-industrial ancestors.

Only 5% of today’s world population lives in countries where income per capita is greater than \$40,000 per year; only 10% lives in countries where income per capita is greater than \$20,000 per year. We can see what the post-agrarian age pattern of human life is. That future is already here on the globe—it is just not evenly distributed. Some of us have reached the top. But the bulk of the world’s population is only on the escalator to modernity. The patterns are set. The top of the escalator is visible—although it is not clear which top we shall reach: many possible tops are immanent in the patterns. The climb will be hard. That is what much of the history of the twenty-first and twenty-second centuries is likely to be about. And thermonuclear war or vastly greater-than-expected ecological catastrophe could still break things.

Nevertheless, for the first time in human history, the end of the Long 20th Century sees a world in which the bulk of the human race has enough food and enough food security that we do not fear being desperately hungry, enough clothing that we are not numbingly cold, enough shelter that we are not frequently soaked, can expect to see our children grow to adulthood, and have access, at least partial access, to what the anthology intelligence that is the human race thinks and knows.

Thus when people millennia hence in universities (if we then have anything we now would recognize as universities) write on examinations (if we then have anything we now would recognize as examinations) their answers to questions about what was important in the Long 20th Century,⁴⁴ they will in all likelihood focus on this explosion in humanity’s collective wealth. They will see the changes in the economy, and their consequences for other areas of life, as the biggest deal.

They will write that as of 1870 chance and contingency had opened a door for humanity to move to a new and very different civilization from the agrarian-age one of relatively-rich but flea-ridden lords and poor and flea-ridden peasants. And that over 1870 to 2016 humanity walked through that open door. They will write that the history of the Long 20th Century was principally *economic*. And they will write that the history of the Long 20th Century was in many ways *glorious*.

1.8: Shadows

Now this Long 20th Century's history ends, if not bitterly and horrifyingly by the standards of typical human history, bracingly.⁴⁵ That the economic problem of securing enough food, shelter, and clothing next year or even next week is no longer our principal problem has not made us happy—for reasons we will examine toward the end of this book.

Moreover, much of the century's history is heartbreakingly tragic. Especially tragic is the Second Thirty Years' War in Europe from 1914-1945.⁴⁶ Of much of the 20th Century we can say, as Russian poet Osip Mandelstam did, "the century's wolf-hound grips my back/Though my blood is not wolf's blood".⁴⁷

And our current problems are mighty. Yes, forms of religious strife and terror that we thought we had left behind several centuries ago are back. Yes, failures of economic policy that land countries in depression that we thought we had learned how to resolve decades ago are back. Yes, nuclear weapons and global warming pose dangers of a magnitude that humanity has never before confronted. Yes, neo-fascism is making a challenge to the cosmopolitan liberal democratic order in a way that few envisioned two decades ago, in the days when it seemed that both fascist nationalism nor autocratic communism had, in Francis Fukuyama's view, abandoned their "ideological pretensions of representing different and higher forms of human society".⁴⁸

The explosion of material wealth and liberty we have seen in the twentieth century has not solved our human problems. Modern North Atlantic liberal democracy is not the end of history. Nevertheless, a naive individual of a century or two ago would wonder at the events, patterns, and problems that brought the twentieth century to its end. The world at the end of the twentieth century has enough wealth to give everyone on the globe what they would regard as a rich upper-middle class style of life. Why does such a rich and powerful world still have problems? It is not

at all clear what our destination is, that we will recognize our destination when we arrive at it, or that many of us will like it when we get there.

Nevertheless, here at the end of the Long 20th Century the world is much richer and much freer than it has been at any time in the past. That transformation is a very big deal. That is what happened in the Long 20th Century. That is the history of the Long 20th Century. That is my Grand Narrative.

How did all this come to pass? First, let me sensitize you to my themes that I hope you will pick up on: Grand Themes for a Grand Narrative...

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¹ A word about the notes to this book: Many—perhaps most—of the claims and assertions I make in this book are debatable, with some—perhaps many—being *very* debatable. The notes are best seen as my belief as to what are the best trails to follow to start thinking about these debates, or at least what trails I followed in the past when I was thinking about these debates. Sometimes I include some more of my thoughts; sometimes I do not.

² There is also a Short 20th Century, from 1914 or 1917 to 1989: from the Bolshevik October Revolution in Petrograd, Russia, or perhaps from the start of World War I, to the Fall of the Wall in Berlin, Germany. But I do not believe that the Short 20th Century makes much sense as a unit.

The principal axis of the history of the Short 20th Century as it is usually told is more political—the defeat of authoritarian and totalitarian fascist and communist challenges to liberal democracy. However, from today’s perspective the Short 20th Century is not a good framing because it ends too soon, before the end of the story: the wished-for claim of the final defeat of challenges to liberal democracy was premature, the American century was still ongoing, and the processes of global wealth diffusion leading to the economic rise of China and others were barely underway. And from any perspective the Short 20th Century starts too late: beginning in 1917 or 1914 suffers from a serious if not fatal case of *in medias res*.

In my opinion the best history of the Short 20th Century that I have read is provided by **John Lukacs** (2013): *A Short History of the Twentieth Century* (Cambridge: Harvard: 9780674725362).

³ I owe a great deal to the provocative and very thoughtful **Max Singer** (1989): *Passage to a Human World: The Dynamics of Creating Global Wealth* (New Brunswick: Transaction Publishers: 1412830524) <<https://books.google.com/books?isbn=1412830524>>

⁴ A thing that is often not recognized. I recall being surprised back in 1995 to find Felipe Fernandez-Armesto writing:

Traditional societies are slow to adjust their habits of reproduction to the new environment of plummeting death rates and rising fertility suddenly created by western aid. While we wait for these adjustments to happen, we shall probably have to endure a period of harrowing uncertainty in which Malthusian checks take their revenge, in which AIDS wipes out some of the people saved by aid, in which famine relief breeds structural famine.... Eventually, however, our descendants will see population increase level off to a point where it can be handled by advances in agronomy which... will replace medicine... as the life-saving wonder science.... “Miracle” yields are already within the compass of this science; only the enormous world surplus in existing foods inhibit progress in application...

My reaction was: everything he said after “eventually” had already happened! See **Felipe Fernandez-Armesto** (1995): *Millennium: A History of Our Last Thousand Years* (New York: Bantam: 0552994820) <<https://books.google.com/books?isbn=0552994820>>

⁵ Depending on how you measure wealth. Consider that Nathan Meyer Rothschild, the richest man in the world at his death in 1836, died of an infected abscess on his backside that we today would cure with a single dose of antibiotics. How much of his fortune would he have traded away to live beyond the age of 58? As someone who turned 58 on June 24, 2018, I suspect a lot. My access to 21st Century Global North medical technology is a very large component of my standard of living. His access to 19th Century western European medical technology was... probably a zero. Niall Ferguson writes: “The doctors may not actually have killed the patient by their interventions... but they inflicted excruciating pain on him...” See what is certainly the best biography of the Rothschilds that I have read: **Niall Ferguson** (1998): *The House of Rothschild: Money's Prophets: 1798-1848* (New York: Viking: 1101157305) <<https://books.google.com/books?isbn=1101157305>>; (1999): *The House of Rothschild: The World's Banker, 1849-1999* (New York: Viking: 0670857688) <<https://books.google.com/books?isbn=0670857688>>. Consider also that “wealth” is both *control over things and experiences* and *control over people*.

⁶ I have not found enough work on what history is, how it works, and how it can go wrong as I would wish. What I like to say to historians is that economists and their theories and frameworks are very useful because they get the workings of complex systems and thus the incidence of shocks and disturbances right (or, at least, they do so when economists are not mistaken). What I like to say to economists is that their theories and frameworks are nothing but missed leading just so stories unless they are strongly rooted in patterns of constraints, opportunities, perceptions, motives, and actions of real people. Good series, good frameworks, good checklists, good maxims are and can be nothing other than crystallized history. Where else, after all, could theories, frameworks, maxims, or checklists have come from?

It would often be better—indeed, it could seldom be much worse—to examine the true source rather than to mainline the crystallized and frequently adulterated version without carefully checking it before hand.

In addition, there is the question of narrative as a form of presentation to boost understanding and memory. We find it easy to think in terms of narratives. We find it easy to remember narratives. We need to be trained, and we find it hard to remember, theories, checklists, maxims, and frameworks.

Our predilection to think in narratives thus, I suspect, makes history a very powerful mental force multiplier.

⁷ On these and related issues, I have profited greatly from reading: **Jonathan Gottschall** (2012): *The Storytelling Animal: How Stories Make Us Human* (New York: Houghton Mifflin Harcourt: 0547391404) <<https://play.google.com/?id=Bl43cU5rdVwC>>

⁸ **Peter Marshall** (2009): *The Reformation: A Very Short Introduction* (Oxford: Oxford University Press: 0199231311) <<https://books.google.com/books?isbn=0191578886>>; **Garrett Mattingly** (1959): *The Armada* (New York: Mariner Books: 0618565914) <<https://books.google.com/books?isbn=0618565914>>

⁹ **John Horace Parry** (1979): *The Spanish Seaborne Empire*: (New York: Random House: 039444650X) <https://books.google.com/books?id=Rwl1e8NWo_sC>; **John Huxtable Elliott** (1964): *Imperial Spain: 1469-1716* (New York: Penguin Books: 0141007036) <<https://books.google.com/books?isbn=0141925574>>; **Eric Williams** (1944): *Capitalism and Slavery* (Charlotte, NC: University of North Carolina Press: 0807844888) <<https://books.google.com/books?id=Qw6fCgAAQBAJ>>.

¹⁰ I learned this from: **John F. Richards** (1993): *The Mughal Empire* (Cambridge: Cambridge University Press: 0521251192) <<https://books.google.com/books?isbn=0521251192>>.

¹¹ I learned this from **George Bailey Sansom** (1961): *A History of Japan: 1334-1615* (Palo Alto: Stanford: 0804705259) <<https://books.google.com/?id=NjCanQEACAAJ>>. Good and very readable is: **Danny Chaplin** (2018): *Sengoku Jidai. Nobunaga, Hideyoshi, and Ieyasu: Three Unifiers of Japan* (CreateSpace: 1983450200) <<https://books.google.com/books?id=ChOlswEACAAJ>>

¹² I learned most from: **Kaya Şahin** (2013): *Empire and Power in the Reign of Süleyman* (Cambridge: Cambridge University Press: 1107034426) <<https://books.google.com/?id=FxkYVnznGXAC>>

¹³ Start with: **Toby Green** (2011): *The Rise of the Trans-Atlantic Slave Trade in Western Africa, 1300-1589* (Cambridge University Press: 1107014360) <<https://books.google.com/books?id=wRM2aO9xey0C>>

¹⁴ Thus Fernand Braudel found it ultimately impossible to write an economic history of the sixteenth-century Mediterranean, and wound up widening the scope of his histories immensely. See **Fernand Braudel** (1972): *The Mediterranean and the Mediterranean World in the Age of Philip II* (New York: Harper and Row: 006010452X 0520203305) <<https://books.google.com/books?isbn=006010452X>> <<https://books.google.com/books?isbn=0520203305>>; (1982): *Civilization and Capitalism* (New York: Harper and Row: 0060148454 0060150912 0060153172) <<https://books.google.com/?isbn=0060148454>> <<https://books.google.com/books?isbn=0060150912>> <<https://books.google.com/books?isbn=0520081161>>.

¹⁵ On the Commercial Revolution era: see **John Richards** (2003): *The Unending Frontier: An Environmental History of the Early Modern World* (Berkeley: University of California Press: 0520230752) <<https://books.google.com/books?id=HQ5KbXYhEB8C>>; **Alfred W. Crosby** (1973): *The Columbian Exchange: Biological and Cultural Consequences of 1492* (New York: Greenwood Press: 0837158214) <https://books.google.com/books?id=n-y_bn3ZM4EC>, (2004): *Ecological Imperialism: The Biological Expansion of Europe, 900–1900* (Cambridge: Cambridge University Press: 0521837324) <<https://books.google.com/books?isbn=1316453960>>;

¹⁶ I recommend starting with **Robert Allen** (2009): *The British Industrial Revolution in Global Perspective* (Cambridge: Cambridge University Press: 0521868270) <<https://books.google.com/books?id=mc4LAQAAQBAJ>>; with (still) **David Landes** (1967): *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present* (Cambridge: Cambridge University Press: 052153402X) <<https://books.google.com/books?id=oQQMBAAAQBAJ>>; and with my great-great uncle's: **Abbott Usher** (1929): *A History of Mechanical Inventions* (New York: McGraw-Hill: 1528163141) <<https://books.google.com/books?id=gi4IAAAAMAAJ>>.

¹⁷ **Moses Abramowitz** (1956): *Resource and Output Trends in the United States since 1870* (New York: NBER: 0870143662) <<http://www.nber.org/chapters/c5650.pdf>>; **Robert Solow** (1956): “A Contribution to the Theory of Economic Growth”, *Quarterly Journal of Economics* 70:1 (February), pp. 65-94 <<http://piketty.pse.ens.fr/files/Solow1956.pdf>>, (1957) “Technical Change and the Aggregate Production Function”, *Review of Economics and Statistics* 39:3 (August), pp. 312-320 <<https://faculty.georgetown.edu/mh5/class/econ489/Solow-Growth-Accounting.pdf>>; **Charles Jones and Deitrich Vollrath** (2013): *Introduction to Economic Growth* (New York: Norton: 978-0-393-91917-2) <<http://books.wwnorton.com/books/webad.aspx?id=4294969960>>

¹⁸ For the calculations here, see: <http://nbviewer.jupyter.org/github/braddelong/LSS18E101b/blob/master/2018-06-20_Slouching_Towards_Utopia_Chapter_1.ipynb> UNFINISHED

¹⁹ **Fernand Braudel** (1958): *Histoire et Sciences Sociales: La Longue Durée*, *Annales* 13:4 (Oct.), pp. 725-753 <<https://www.jstor.org/stable/27579986>>.

²⁰ For an interesting provocation that the discovery of agriculture and herding—the coming of the Agrarian Age—has been and still is a curse and was a catastrophic mistake for humanity, see **Jared Diamond** (1987): *The Worst Mistake in the History of the Human Race* <<http://discovermagazine.com/1987/may/02-the-worst-mistake-in-the-history-of-the-human-race>>: “At Dickson Mounds... when when a hunter-gatherer culture gave way to intensive maize farming around A.D. 1150... the farmers had a nearly 50 per cent increase in enamel defects indicative of malnutrition, a fourfold increase in iron-deficiency anemia (evidenced by a bone condition called porotic hyperostosis), a threefold rise in bone lesions reflecting infectious disease in general, and an increase in degenerative conditions of the spine, probably reflecting a lot of hard physical labor. ‘Life expectancy at birth in the pre-agricultural community was about twenty-six years’, says George Armelagos, ‘but in the post-agricultural community it was nineteen years.’... Besides malnutrition, starvation, and epidemic diseases, farming helped bring another curse upon humanity: deep class divisions.... Only in a farming population could a healthy, non-producing elite set itself above the disease-ridden masses. Skeletons from Greek tombs at Mycenae c. 1500 B.C. suggest that royals enjoyed a better diet than commoners, since the royal skeletons were two or three inches taller and had better teeth (on the average, one instead of six cavities or missing teeth).... Hunter-gatherers practiced the most successful and longest-lasting life style in human history. In contrast, we're still struggling with the mess into which agriculture has tumbled us, and it's unclear whether we can solve it...”

Yes, but. This is overly romanticized: few UCLA Geography professors abandon Westwood for the gatherer-hunter lifestyle, and gatherer-hunters never lived in the Garden of Eden. Biomedical health was good in large parts because life was hard and threats were dire. And the lesser biomedical health of settled Agrarian Age populations had compensations in terms of comfort and useful and entertaining things and experiences not closely linked to Darwinian “fitness”. As for violence and oppression, the belief that gatherer-hunters are less subject to it has always seemed to me to spring from Scottish Highland Romanticism. Recently, I think, this has shown itself most prominently in **James Scott** (2009): *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia* (New Haven: Yale University Press: 9780300156522) <<https://books.google.com/books/?isbn=9780300156522>>. Cf.: **Diana Gabaldon** (1998): *Outlander* (New York: Random House: 0385674678) <<https://books.google.com/books?isbn=0385674678>>

²¹ I learned my demographic history from **Carlo Cipolla** (1962): *An Economic History of World Population* (New York: Pelican: 0140205373) <<https://books.google.com/books/?isbn=0140205373>>; from **Massimo Livi-Bacci** (1997): *A Concise History of World Population* (New York: Wiley: 0631204555) <<https://books.google.com/books?id=MHufQgAACAAJ>>; and from **Richard Steckel** (1995): “Stature and the Standard of Living”, *Journal of Economic Literature* 33:4 (December), pp. 1903-40 <<https://www.jstor.org/stable/2729317>>; **Richard Steckel and Jerome Rose**, eds. (2002): *The Backbone of History: Health and Nutrition in the Western Hemisphere* (Cambridge: Cambridge University Press: 0521801672) <<https://books.google.com/books/?isbn=0521801672>>; **Richard Steckel and Roderick Floud**, eds. (1997): *Health and Welfare during Industrialization* (Chicago: University of Chicago Press: 0226771563) <<https://books.google.com/books/?isbn=0226771563>>.

²² David Herlihy. Joachim Voth.

²³ Source: Robert Allen et al. (2009): <>. How could real wages possibly be so low—at or below the bare “biological subsistence” with no allowance for expenditures on any sociologically-mandated commodities, with a budget limited to: each day: 1657 calories of grain, 187 calories of beans, 34 calories of meat, 60 calories of butter, for a total of 1938 calories and 89 grams of protein; plus per year: 1.3 kg of soap, 3 meters of linen or cotton, 1.3 kg of candles, 1.3 liters of lamp oil, and 2 million BTU of fuel? First, maybe Allen et al.’s estimates of wages—or prices—are inaccurate. Second, urban unskilled workers in Commercial Revolution-era Italy and China and India are likely, predominantly, to be people who were pushed into the city by an absence of opportunities for property and employment in the countryside. Thus their wages are depressed. (By contrast, unskilled urban workers in rapidly-expanding and prosperous Amsterdam and London had to be pulled in by being offered better opportunities than they could find out in the countryside.)

²⁴ Source: Robert Allen et al. (2009): <>. Their “bare subsistence” basket truly is a biological minimum, or close too it: Each day: 1657 calories of grain, 187 calories of beans, 34 calories of meat, 60 calories of butter, for a total of 1938 calories and 89 grams of protein; plus per year: 1.3 kg of soap, 3 meters of linen or cotton, 1.3 kg of candles, 1.3 liters of lamp oil, and 2 million BTU of fuel. We

²⁵ **Thomas Hobbes** (1651): *Leviathan; Or the Matter, Forme, & Power of a Common-Wealth Ecclesiastical and Civill* (London: Andrew Crooke) <<http://www.gutenberg.org/ebooks/3207>>

²⁶ This was brought home to me most impressively by Trevon Logan <<http://www.econ.ohio-state.edu/trevon/>>, with his estimates of the degree of nutritional stress that the United States working class—then by far the richest working class in the world save for that of Australia—was under in the late nineteenth century. See **Trevon Logan** (2006): “Nutrition and Well-Being in the Late Nineteenth Century”, *Journal of Economic History* 66:2 (June), pp. 313-341 <<https://www.jstor.org/stable/3874879>>; (2006): “Food, Nutrition, and Substitution in the Late Nineteenth Century”, *Explorations in Economic History* 43:3 (September), pp. 527-545 <<https://www.sciencedirect.com/science/article/pii/S0014498305000501?via%3Dihub>>; (2009): “The Transformation of Hunger: The Demand for Calories Past and Present”, *Journal of Economic History* 69:2 (June), pp. 388-408 <<https://www.cambridge.org/core/journals/journal-of-economic-history/article/transformation-of-hunger-the-demand-for-calories-past-and-present/A3A0300F9F455728CC9C3563D3D07303>>.

²⁷ Global productivity growth at the pace of 1800 to 1870 was, in my view at least, unlikely to be rapid enough to push humanity over the hump of the demographic transition. If we suppose that

²⁸ Subsistence baskets and respectability baskets...

²⁹ “*Hegemon*”, as the word was used by my old teacher Charles Kindleberger: a country that is first—but definitely not among equals—and that takes the lead in establishing the rules for and nudging the international system toward a largely-cooperative equilibrium of policies and practices that is more than not win-win. See **Charles Kindleberger** (1973): *The World in Depression, 1929–1939* (Berkeley: University of California Press: 0520024230); see also **Barry J. Eichengreen** (1987): “Hegemonic Stability Theories of the International Monetary System”, in Richard Cooper, Barry Eichengreen, Gerald Holtham, Robert Putnam and Randall Henning (eds.): *Can Nations Agree? Issues in International Economic Cooperation* (Washington: The Brookings Institution: 0815711786), pp. 255-298 <<https://tinyurl.com/dl20180618f>>; and see **J. Bradford Delong and Barry J. Eichengreen** (2014): *New Preface to the Anniversary Edition of “The World in Depression”* <<https://tinyurl.com/dl20180618e>>: “Kindleberger argued that at the root of Europe’s and the world’s problems in the 1920s and 1930s was the absence of a benevolent hegemon: a dominant economic power able and willing to take the interests of smaller powers and the operation of the larger international system into account by stabilising the flow of spending through the global or at least the North Atlantic economy, and doing so by acting as a lender and consumer of last resort. Great Britain, now but a middle power in relative economic decline, no longer possessed the resources commensurate with the job. The rising power, the US, did not yet realise that the maintenance of economic stability required it to assume this role. In contrast to the period before 1914, when Britain acted as hegemon, or after 1945, when the US did so, there was no one to stabilise the unstable economy. Europe, the world economy’s chokepoint, was rendered rudderless, unstable, and crisis- and depression-prone...”

³⁰ On nations and nationalism vs. various forms of imperial domination, I believe that the places to start are: **Ernest Gellner** (1997): *Nationalism* (New York: NYU Press: 0814731139) <<https://books.google.com/books?id=CwWWRAACA AJ>>; **John A. Hall**, ed. (1998): *The State of the Nation: Ernest Gellner and the Theory of Nationalism* (0521633249) <<https://books.google.com/books?isbn=0521633249>>; **Benedict Anderson** (1991): *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso: 1844670864) <<https://books.google.com/books?isbn=1844670864>>—although this last is made unnecessarily and profoundly opaque by its suffering from an Anderson brothers’ attachment to Marxian frameworks where Weberian ones would be appropriate: both Perry and Benedict Anderson write about modes of production where they ought to be writing about modes of domination and modes of legitimation.

³¹ See **Alfred D. Chandler** (1977): *The Visible Hand: The Managerial Revolution in American Business* (Cambridge: Harvard University Press: 0674940512) <<https://books.google.com/books?isbn=0674940512>>; **Richard Baldwin** (2016): *The Great Convergence: Information Technology and the New Globalization* (Cambridge: Harvard University Press: 0674972686) <<https://books.google.com/books?isbn=0674972686>>

³² See **Francis Fukuyama** (2011, 2014): *The Origins of Political Order: From Prehuman Times to the French Revolution, Political Order and Political Decay: From the Industrial Revolution to the Globalization of Democracy* (New York: Profile Books: 1846682568, 0374535620) <<https://books.google.com/books?isbn=1846682568>> <<https://books.google.com/books?isbn=0374535620>>

³³ The contest between election-based systems and these last two—leadership charisma to exalt an *ethos* and knowledge of a secret key—is the focus of most histories of the Short 20th Century. The standard history of the Short 20th Century has come to be **Eric Hobsbawm** (1994): *The Age of Extremes: A History of the World, 1914-1991* (New York: Pantheon: 0394585755). I have big problems with this. I believe the book to be very badly warped by Hobsbawm’s inability to reflect on the personal political and ideological commitments he made to the Stalinist cult when he was young and in Germany in the interwar years. See **J. Bradford DeLong** (1995): *Low Marx: A Review of Eric Hobsbawm’s “Age of Extremes”* <<https://tinyurl.com/dl20180618a>>:

More than traces remain of the Eric Hobsbawm who was once a believing acolyte of the religious cult of Stalinist World Communism. Judgments made then remain unexamined, or unsuccessfully reexamined, parts of the structure of his thought. It is as if a star—belief in the world religion of Communism—died, but light emitted before its death continues to reflect off planets and moons. The remains of Hobsbawm’s commitment to the religious cult of Stalinist World Communism get in the way of his judgment, and twist his vision.

On planet Hobsbawm, for example, the fall of the Soviet Union was a disaster, and the Revolutions of 1989 a defeat for humanity. On planet Hobsbawm, Stalin planned multi-party democracies and mixed economies for Eastern Europe after World War II, and reconsidered only after the United States launched the Cold War. On planet Hobsbawm, Hungarian—collectivized—agriculture is more productive than modern French agriculture.

Perhaps worst of all, on planet Hobsbawm modern democracy is not a good thing: elections are “contests in fiscal perjury” among voters with “no qualifications to express an opinion”, that create governments that work only when they “did not have to do much governing”. If there is a good word about really existing democracy—as a check upon official paranoia, as way of adding to the chances that people can lead a quiet life without fear, or as a way of ascertaining the public interest—I missed it.

Elections are much, much more than that...

³⁴ **Greg Clark** (2007): *A Farewell to Alms: A Brief Economic History of the World* (Princeton: Princeton University Press: 9781400827817).

³⁵ For the argument that the watershed came earlier, see: **Alfred Crosby** (1997): *The Measure of Reality: Quantification in Western Europe, 1250-1600* (Cambridge: Cambridge University Press: 0521639905) <<https://books.google.com/books?isbn=0521639905>> and **Joel Mokyr** (2016): *A Culture of Growth: The Origins of the Modern Economy* (Princeton: Princeton University Press: 0691168881) <<https://books.google.com/books?isbn=1400882915>>. For my (very short) take on Mokyr's argument, see: **J. Bradford DeLong** (2016): "Economic History: The Roots of Growth", *Nature* 538 (October 27), pp. 456–457 <<https://www.nature.com/articles/538456a>> <<http://www.bradford-delong.com/2017/03/2017-03-06-first-draft-review-for-nature-of-a-culture-of-growth-by-joel-mokyr.html>> <<http://www.bradford-delong.com/2018/01/reading-notes-for-joel-mokyr-a-culture-of-growth.html>>: I find myself very suspicious of arguments that give a unique value to cultures, especially when they are my own. I tend to appeal instead to principles of representativeness—that I should not assume that I or anything of mine is special without very good reason—of non-cherry-picking—do not accentuate the positive while neglecting the negative—and of visibility—that of requiring *concrete causal mechanisms*, rather than waving one's hands, saying "it was in the air" and "there are lots of other ways it matters besides those that have been mentioned here". That does not mean that I am right....

The central axis around which Mokyr's argument turns is the emergence from 1450-1750 of the so-called "Republic of Letters": a single elite-level "market for ideas" spanning the European continent. Intellectuals competed for reputation and patronage.... Patronage (mostly) followed reputation, rather than (typically) being gained by flattering the powerful. The political fragmentation of Europe meant that individual rulers could not suppress thought. The ideological unity of the Republic of Letters meant that the community of intellectuals had a full sub-continent wide scale. No other civilization had ever developed a set of institutional practices followed by its intellectual cadre that was so effective at generating incentives to create, discuss, modify, test, disseminate, and use ideas. The European Republic of Letters had not before 1800 outstripped either of its Chinese, Indian, or Islamic world counterparts in terms of the number of its members or the ferocity with which they sought "knowledge". Yet there was no comparison between them in the amount of valid scientific or applicable technological knowledge that had been generated in the roughly three centuries that this divergence had had to build.

Mokyr's chain of argument concludes with a broadside against those [like me] who have been rejecting his school of thought by demanding clear, obvious, strong linkages between the writings of the thinkers of the Republic of Letters of the Age of Enlightenment and actual on-the-ground new installed technologies. He says that we:

take a very narrow view of what the Industrial Revolution was about, [for] the mechanisms by which the Republic of Letters affected technological progress are deeper and more complex than "how much science was needed to build a spinning jenny". Science plays an ever-growing role in the subsequent history of industrialization.... Without the Republic of Letters and the changing agenda of science... [any wave of European growth] would have been short-lived and fizzled out after 1815 or so...

³⁶ **John Stuart Mill** (1871): *Principles of Political Economy: with Some of Their Applications to Social Philosophy* (7th Ed.) (New York: Prometheus Books: 1591021510) <<http://www.gutenberg.org/ebooks/30107>>, p. 516.

³⁷ Hence Mill's declaration immediately after the passage quoted above that the inventions "have not yet begun to effect these great changes in human destiny, which it is in their nature and in their futurity to accomplish. Only when, in addition to just institutions, the increase of mankind shall be under the deliberate guidance of judicious foresight, can the conquests made from the powers of nature by the intellect and energy of scientific discoverers, become the common property of the species, and the means of improving and elevating the universal lot..." **John Stuart Mill** (1871): *Principles of Political Economy: with Some of Their Applications to Social Philosophy* (7th Ed.) (New York: Prometheus Books: 1591021510) <<http://www.gutenberg.org/ebooks/30107>>, p. 516. Mill looks to a solution not in still faster technological progress but rather in bringing "the increase of mankind... under the deliberate guidance of judicious foresight". What does that mean? I think that means state imposition of child licenses, plus minimum-security prisons for those who seek to draw on their social insurance accounts:

Every one has a right to live.... But no one has a right to bring creatures into life, to be supported by other people. Whoever means to stand upon the first of these rights must renounce all pretension to the last. If a man cannot support even himself unless others help him, those others are entitled to say that they do not also undertake the support of any offspring which it is physically possible for him to summon into the world... the state... is bound in self-protection, and... for the sake of every purpose for which government exists, to provide that no person shall be born without its consent. If the ordinary and spontaneous motives to self-restraint are removed, others must be substituted.... The guarantee of support could be freed from its injurious effects upon the minds and habits of the people, [only] if the relief, though ample in respect to necessities, was accompanied with conditions which they disliked... some restraints on their freedom... privation of some indulgences... [their] condition... needs not be one of physical suffering, or the dread of it, but only of restricted indulgence, and enforced rigidity of discipline...

Much of your liberty, in Mill's view—including your liberty to procreate—ought to be abridged if the market does not provide you with sufficient income-earning opportunities.

³⁸ This observation by founding libertarian Mill makes me think that most libertarians today who draw heavily on the Oxford inaugural lecture of **Isaiah Berlin** (1958): *Two Concepts of Liberty* <<https://tinyurl.com/dl20180618g>>, with its claim that "negative" and "positive" liberty are in "direct conflict", fundamentally misconstrue the libertarian project—or, at least, have no warrant to call themselves intellectual descendants and comrades of John Stuart Mill, and fail at some fundamental level to grasp what Mill thought the libertarian project was. Berlin's definition that "I am normally said to be free to the degree to which no man or body of men interferes with my activity... the area within which a man can act unobstructed by others..." is one in which Mill's use of the word *imprisonment* makes no sense at all.

³⁹ What was life like back then, before 10000 years ago, in the gatherer-hunter age? Recall that up until 10000 years ago, we humans were limited in what material objects we could use to assist us by what we could make with stone and wood tools, what we could carry as we moved about our ranges, and what would not rot or be washed away while we were not there, and what we could remember. We were back then, as a species, pretty buff—if only because those who were not fit tended not to survive for long. We humans ate a very balanced diet—much better than in the agrarian age: gatherer-hunters look to have been about as tall as we are today. But back when we were gatherer-hunters we spent a lot of time hungry, cold, and wet. And, as in the agrarian age, we were a subsistence society: a life expectancy at birth of less than 30, with an average woman having seven pregnancies, five births, three children surviving to five years, and 2.002 children surviving to reproduce in order to generate average population growth of 0.1% per generation. Gatherer-hunters were better nourished than agrarian-age populations, but the lifestyle was very hard on infants.

⁴⁰ It is likely that the best-selling book was Harriet Beacher Stowe (): *Uncle Tom's Cabin*. It is likely that the second-best selling book was Lew Wallace (): *Ben-Hur: A Story of the Christ*. **Edward Bellamy** (1888): *Looking Backward, 2000-1887* (Boston: Houghton Mifflin). See **Arthur E. Morgan** (1944): *Edward Bellamy*. New York: Columbia University Press, 1944; Sylvia E. Bowman, *The Year 2000: A Critical Biography Of Edward Bellamy*. New York: Bookman Associates, 1958. Edward Bellamy was born in 1850 in Chicopee, MA, and died of tuberculosis in 1898.

⁴¹ **Edward Bellamy** to William Dean Howells, 1888: “Every sensible man will admit there is a big deal in a name, especially in making first impressions. In the radicalness of the opinions I have expressed, I may seem to out-socialize the socialists, yet the word socialist is one I never could well stomach.... It is a foreign word in itself, and equally foreign in all its suggestions. It smells to the average American of petroleum, suggests the red flag, and with all manner of sexual novelties, and an abusive tone about God and religion, which in this country we at least treat with respect.... ‘Socialist’ is not a good name for a party to succeed with in America. No such party can or ought to succeed that is not wholly and enthusiastically American and patriotic in spirit and suggestions...” Sylvia E. Bowman, *The Year 2000: A Critical Biography Of Edward Bellamy*. New York: Bookman Associates, 1958.

⁴² **Edward Bellamy** (1890): "How I Came to Write *Looking Backward*," *The Nationalist*, vol. 2, p. 199 <<https://www.depauw.edu/sfs/documents/bellamy.htm>>

⁴³ Lawrence Summers (1994): Foreign Aid: Why Do It? And What Works? <http://web.archive.org/web/20010617135541/http://www.j-bradford-delong.net/Clippings/rapid_escalator.html>

⁴⁴ On time-distancing from the present as an aid to thought, see **Annie Duke** (2016): *Thinking in Bets: Making Smarter Decisions When You Don't Have All the Facts* (New York: Penguin: 0735216355) <<https://books.google.com/books?isbn=0735216355>>

⁴⁵ See **Edward Luce** (2017): *The Retreat of Western Liberalism* (London: Little Brown: 0802188869) <<https://books.google.com/books?isbn=0802188869>>:

At stake is a quasi-religious reading of Western history that stretches back to the Magna Carta... in 2015... [which] morphed into the founding myth of Western liberalism.... That this covenant between John and his rebellious nobles lasted for only two months, awarded fixed privileges to the aristocracy and limited the rights of women and Jews, should give us some pause. Rather than a springboard to liberty, the Magna Carta was a messy expediency.... It quickly expired. That it is today so prized... is a measure of our amnesia....

In very different ways, China and India have traditionally taken a circular view of history. They still do. Material conditions may improve. But humanity's moral condition is constant. There is no spiritual or political finale towards which history is guiding us. To the rest of the world... history does not end... is a timeless repetition of human folly and correction....

But the most mortal threat to the Western idea of progress comes from within. Donald Trump, and his counterparts in Europe, did not cause the crisis of democratic liberalism. They are a symptom. This may be hard to digest, particularly for American liberals, whose worldview has been shaken by his victory yet who retain faith that Trump's victory was an accident delivered by the dying gasp of America's white majority—and abetted by Putin. History will resume normal business after a brief interruption. How I wish they were right. I fear they are not. Since the turn of the millennium, and particularly over the last decade, no fewer than twenty-five democracies have failed around the world, three of them in Europe (Russia, Turkey and Hungary) The backlash of the... ‘precariat’.... Their weight of numbers is growing. So, too, is their impatience. Barrington Moore... famously said ‘no bourgeoisie, no democracy’. In the coming years we will find out if he was right...

See **Barrington Moore** (1966): *Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World* (Boston: Beacon Press: 0807097047) <<https://books.google.com/books?isbn=0807097047>>.

⁴⁶ The Short 20th Century of 1914 or 1917 to 1989 places much greater weight on the tragic aspects. Thus **Eric Hobsbawm** (1994): *The Age of Extremes: A History of the World, 1914-1991* (New York: Pantheon: 0394585755) writes his history of the Short 20th Century as a tragedy—both the death and destruction, and also that humanity did not take the road to utopia opened by the 1917 Bolshevik Revolution. His history sees the Short 20th Century as primarily the story of the World Communist Movement, which is its tragic hero. Capitalism and its own flaws destroy its ability to build utopia. But before it expires it saves the world from fascism, which would have been an even worse form of modern capitalism than the one we have today.

But that is, I think, the wrong focus—even for the Short 20th Century. Fascism and liberal democracy are not usefully viewed as forms of some overarching system called “capitalism”. World Communism was not the principal challenger to the liberal democracies in the twentieth century. World Communism was a horrible and oppressive and genocidal detour. And I do not see it as a source of strength in the struggle of democracy and liberty against authoritarianism and totalitarianism.

The best thing I have read trying to get inside the reality of rule by the post-Stalin Communist system is: **Francis Spufford** (2010): *Red Plenty* (London: Faber and Faber: 9781555976040) <<https://books.google.com/books?id=Mr5AAAAACAAJ>>

See also: **J. Bradford DeLong** (2009): *Understanding Karl Marx* <<https://tinyurl.com/dl20180618b>>. I do hope to someday teach a course on Karl Marx. See **J. Bradford DeLong** (2014): *Prolegomenon to a Reading Course on Karl Marx* <<https://tinyurl.com/d20180618c>> and <<https://tinyurl.com/dl20180618d>>.

⁴⁷ **Osip Mandelstam** (1989): *Selected Poems* (London: Penguin Books: 1590170911) <<https://books.google.com/books?isbn=1590170911>>. Mandelstam’s poems pack an extra punch if read alongside his wife **Nadezhda Mandelstam** (1970): *Hope Against Hope* (New York: Random House: 0375753168) <<https://books.google.com/books?isbn=0375753168>>; (1974): *Hope Abandoned* (New York: Random House: 1846556546) <<https://books.google.com/books?isbn=1846556546>>.

⁴⁸ **Francis Fukuyama** (1989): “The End of History”, *The National Interest* 16 (Summer), pp. 3-18 <<https://www.jstor.org/stable/24027184>>, claiming that such ideological pretensions had been abandoned by effectively all non-liberal capitalist régimes. It looks today as though Fukuyama was wrong. The “Asian Authoritarian Model” extending from Lee Kuan Yew of Singapore at one extreme to Xi Jinping at the other regards itself as a different and better if not necessarily “higher” form of human society. Fukuyama continues to argue that such systems are subject to an insuperable “bad emperor” problem and that countries that adopt such régimes are making bad mistakes. See **Francis Fukuyama** (2012): “China’s ‘Bad Emperor’ Problem”, *The American Interest* <<https://www.the-american-interest.com/2012/05/28/chinas-bad-emperor-problem/>>; (2014): *China’s Bad Emperor Problem* <https://www.huffingtonpost.com/francis-fukuyama/chinas-bad-emperor-problem_b_4876386.html>; (2018): “China’s ‘Bad Emperor’ Returns”, *The World Post* <<http://tinyurl.com/dl20180718a>> ; among others. But he has a hard row to hoe in this post-2007 age of secular stagnation in the Global North and in this post-2015 age of Donald Trump and Teresa May.

Moreover, the neo-fascist movements of today do indeed have “ideological pretensions of representing different and higher forms of human society”. That is, I think, the right name for movements whose standard-bearers run from Donald Trump to Boris Johnson to Viktor Orban and Vladimir Putin. Many call these movements “populist”, for example **Barry Eichengreen** (2018): *The Populist Temptation: Economic Grievance and Political Reaction in the Modern Era* (New York: Oxford University Press: 9780190866280) <<https://books.google.com/books?isbn=9780190866280>>. But I believe Barry gives away the game when he writes “I define populism as a political movement with anti-elite, authoritarian, and nativist tendencies...” and of “charismatic leaders with anti-establishment, authoritarian, and nationalist tendencies, from Benito Mussolini to Ioannis Metaxas...” Nobody called Mussolini or Metaxas a “populist” at the time. The American Populists of the late 19th Century were a political movement that sought egalitarian economic policies: breakup of the trusts, regulation of railroad rates, the free coinage of silver. See **Lawrence Goodwyn** (1978): *The Populist Moment: A Short History of the Agrarian Revolt in America* (New York: Oxford University Press: 0195024168) <<http://books.google.com/books/?isbn=0195024168>>. There is a word for a pro-plutocrat political movement fueled on ethnic and national animosity toward others, especially rootless cosmopolites. That word ain’t “populism”. I believe that we should use “fascism” where it applies. If we do not, we will not have rectified names. If names are not rectified, thought will not be clear. If thought is not clear, governance will not be just. If governance is not just, the people will not prosper.