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Peter Temin

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### **ABSTRACT**

This review essay of the two-volume *Cambridge History of Capitalism* (2014), edited by Larry Neal and Jeffrey G. Williamson, is divided into three parts. First, I describe three chapters from the second volume that I recommend for all economists to add depth to their understanding of the world economy today. Robert C. Allen analyzes the world distribution of income; Randall Morck and Bernard Yeung discuss the history of business groups; and Peter Lindert surveys private and public programs to help the poor. In each case, they analyze historical backgrounds that illuminate current issues. Second, I criticize the definition of capitalism used in these volumes as too expansive to be useful. I argue that this definition mars the essays in first volume by stimulating a fruitless search for capitalism in the millennium before the Industrial Revolution. Third, I describe the essays in this reference work starting from the most recent and ending with those about antiquity.

Peter Temin  
Department of Economics, E18-276  
MIT  
77 Massachusetts Avenue  
Cambridge, MA 02139  
and NBER  
[ptemin@mit.edu](mailto:ptemin@mit.edu)

## Introduction

What is an economist to make of two volumes containing one thousand pages on the history of capitalism? Is it another Non-Communist Manifesto, echoing Rostow (1960)? The two volumes divide history at 1848, the date of Marx's Communist Manifesto. Or is it an attempt by Cambridge University Press to expand current interest in the history of American capitalism? Harvard has a Program on the Study of Capitalism (Beckert, et al., 2014). Since most readers of the JEL do not spend their days worrying about these questions, I start by describing three chapters in this collection that I recommend to all economists. Only then do I confront the question of intent and describe the volumes as a whole.

The first volume ranges in time from the 6<sup>th</sup> century BCE to the 19<sup>th</sup> century CE and surveys areas around the world. The second volume treats only the last two centuries, but its chapters utilize the available data to delve deeply into a variety of economic aspects of the economies surveyed. The 34 contributions are written by senior economic historians, and the bibliographies that follow each chapter assist readers to find more information about the research behind the essays. The chapters provide good introductions to myriad subjects.

Volume 2 of *The Cambridge History of Capitalism* is appropriately subtitled, "The Spread of Capitalism from 1848 to the Present." Volume 1 is subtitled, "The Rise of Capitalism from Ancient Origins to 1848," and appears to claim that capitalism, described as spreading in the second volume, took more than a millennium to go from birth to adolescence. This program suggests a teleological view of history that looks at the past only to discover the seeds of the present, a view that flattens history into a series of anticipatory examples. Sound economic history requires more than searching for ancient practices that anticipate more modern ones.

Perhaps the largest of the questions raised in and by this Cambridge History is whether economists can learn from history. To encourage this communication, I recommend a few noteworthy chapters, discuss the definition of capitalism and then survey the content of these volumes in *reverse*, from the most modern to the most ancient. Only those few economists interested in the ancient world will be attracted to a collection that starts with three papers on antiquity. I instead follow the lead of Wassily Leontief, who argued long ago that we should write history backwards when it is divergent (Leontief, 1963). However we write it, perhaps backwards is the best way for economists to read it.

#### Papers of interest to all economists

The first paper I recommend for all economists is by Robert C. Allen; it is the first substantive paper in the second volume of this collection. Allen explains why the international economy looks like it does today. He starts with a short summary of his theory of the Industrial Revolution: “[T]he new technology substituted capital and cheap energy for expensive labor.” (II, 25) This is indeed short, but a longer version can be found in the essay on the Industrial Revolution by Knick Harley in Chapter 16 of the first volume or in Allen (2009).

While simple, this theory is substantive in that it could be refuted. This can be seen clearly by differentiating it from several other theories. Allen’s theory differs, for example, from that by Oded Galor. Galor (2011) explained the transition from Malthusian to modern economic growth in models that start from maximizing individuals in closed economies that contain one undifferentiated good but no money or credit. Economies exit from a subsistence-consumption regime when potential income exceeds a critical level.

Galor asserted that technological progress is a function of education and population size. Since education is endogenous in this model, the driver of this function is population size. When the population gets large enough to make technology advanced enough, then parents decide to educate their children, and modern economic growth replaces Malthusian stagnation. Education in industrializing Britain however was limited because the government “passed up high rates of return,” as documented by Peter Lindert in Chapter 14 of volume 2 (II, 484), and Allen’s model does not require it.

Allen’s theory also differs from the argument by Joel Mokyr. Mokyr (2009) argued that the Industrial Revolution was caused by the Enlightenment, that is, by the growth of science and analytic thinking. This view has two problems for present purposes. First, the mechanism that leads from the Enlightenment to the Industrial Revolution is not spelled out carefully enough to provide tests of its power. Second, this view may explain why Europe industrialized before the Middle or Far East, but it cannot explain why Britain rather than France initiated the process. That gives us only a few data points, albeit important ones, with which to test this view in the large.

Finally, Allen’s view differs from the classic view of Thomas Ashton (1948, p. 11): “[T]he importance of the lowering of the rate of interest in the half-century before the industrial revolution has never been properly stressed by historians. If we seek—it would be wrong to do so—for a single reason why the pace of economic development quickened about the middle of the eighteenth century, it is to this we must look.” This view was reiterated by Ashton’s friend, John Hicks in his *Theory of Economic History*, to which I return in the next section of this review. Hicks (1969, p. 144) states it like this: “It is not simply that rates of interest had fallen (as they had). What is more important is the greater availability of funds, of which the fall in

interest was a symptom, but no more than a symptom.” We do not need to parse the difference between these two expressions of this theory; it is enough to acknowledge that they concern a different set of relative prices than Allen’s theory. Allen focused on the ratio of wages to power, while Ashton and Hicks focused on the cost of capital. There is overlap, but Allen considered the price of a particular kind of capital good rather than the general cost of investment. Allen also discussed the incentive to innovate, to invent and adopt new machinery, while Ashton and Hicks only discussed the incentive to invest in current technology. The former was more important in the Industrial Revolution.

Allen’s theory can be clarified by the data in Figure 1, taken from Allen (2001) to become Figure 14.4 in the first volume of this collection (I, 496). This graph shows real wages in selected European cities from 1200 to 1900. It is clear that London and Amsterdam had higher real wages than other European cities in the eighteenth century. According to Allen, this was half of the incentives that led to the Industrial Revolution. The other half was the cost of power, which differed between Britain and Holland. The former country drew its power from coal, while the latter drew it from peat. Mining of coal was far less labor intensive than harvesting peat, and the ratio of real wages to the cost of power was higher in Britain. Allen’s theory thus explains why the Industrial Revolution started in eighteenth-century Britain rather than anywhere else or anytime else.

Another aspect of Figure 1 is important for discussion later in this review. Note the peak in real wages in the fifteenth century. It was due to the Black Death that swept through Europe in the fourteenth century and devastated the population. The century-long delay in the effect of high mortality on real wages shows that the Malthusian system worked slowly in the world before industrialization. There was room in a Malthusian world for real wages to rise quite

dramatically without the change in technology we call the Industrial Revolution. Previous examples of early high real wages are described in the first volume of this collection.

The effects of the Black Death also were very durable, at least in London and Amsterdam. Recent research has shown how this happened. Voitländer and Voth (2013) argue that the Black Death gave rise to the European Marriage Pattern described by Hajnal (1965) that set in motion a process that led to the Industrial Revolution. This pattern had three components: the age of female marriage was high, in their twenties; many women did not marry at all; and married women did not automatically join the household of their husbands. According to Hajnal, this contrasted with an Asian marriage pattern where almost all women married at menarche and moved into extended households of their husbands' families. But while Hajnal observed this European pattern in the early modern period, he offered no clues where it came from.

Voitländer and Voth argue that the scarcity of labor after the Black Death led to a change of agricultural technology. Moving along the wage-rental isoproductivity line, farmers changed from growing crops to tending animals, from arable farming to husbandry. The movement along a smooth production-possibility curve was a sharp change in the underlying technology. Sir Thomas More expressed it most colorfully over a century after the Black Death in his *Utopia* (2012 [1516]): “Your sheep that were wont to be so meek and tame, and so small eaters, now, as I hear say, have become so great devourers and so wild, that they eat up and swallow down the very men themselves. They consume, destroy, and devour whole fields, houses and cities.”

The result of this adaptation of agricultural technology changed the role of women in medieval society. Switching from crops to husbandry reduced the demand for strength to push plows and expanded the scope of work that women could do. The result was a change in the

status of women in society that Alesina, Giuliano and Nunn (2013) observed at other times and places as well. The reduction in plowing reduced the demand for men's labor and increased it for women's labor. Women's wages rose and their opportunity for work expanded. They delayed marriage, entered service and became more independent. This in turn led to the European Marriage Pattern and the family pattern described by Hajnal.

It was a massive change in the structure of society. Holland shared in this history, but lacked the abundant coal in Britain. The Dutch used peat for fuel, as noted above, and the Industrial Revolution began in Britain, fueled by the cheap power of Allen's model. Dennison and Ogilvie (2014) recently presented a more nuanced version of this story based on local observations of the elements of the European Marriage Pattern.

Allen notes in his chapter that this created two problems for other countries. The British innovations were only profitable with British factor prices. In addition, Britain's comparative advantage in manufactures increased sharply. Countries in Europe that had factor prices near the British adopted what Allen calls the Standard Model, consisting of legal equality, extensive education, free trade within countries, and tariffs for external trade. This created a favorable climate for industrial development, and industrialization spread within Europe and the countries of British settlement.

Other countries in Asia and Africa were unable to raise their wages enough and impose high enough tariffs to make their own manufactures profitable. They de-industrialized while industrialization spread, giving rise to the Great Divergence of the current world economy. There were of course variations in colonies and other countries, as described in Allen's chapter and in Allen (2011).

An important policy conclusion emerges from this historical analysis. In order to raise wages in poor countries to make modern industry profitable, it is not enough to have education. It is necessary to reduce the rate of population growth to make labor scarcer. The best way to do this is to educate women and provide occupations that enable them to work, rather like husbandry after the Black Death. Of course, this is easier said than done, but it reveals religious and cultural problems about the role of women that need to be an integral part of economic development theory today.

Before you accept these implications, you might take a look at another chapter that is worth the attention of general economists. Randall Morck and Bernard Yeung discuss the history of “business groups” in Chapter 7 of Volume 2. These groups are defined as distinct companies all controlled by a single decision maker (La Porta, Lopez-de-Silanes, and Shleifer (1999). Morck and Yeung count two or more such listed companies as business groups. They find that business groups are legion and can be found in rich and poor economies alike. As with the essay by Allen, they provide ample references to the extensive literature on their topic at the end of their chapter.

The chapter argues that business groups are active around the world, in all sorts of countries. The most famous ones are the Robber Barons in late nineteenth-century America, *zaibatsu* in Japan and *chaebol* in Korea. They are mentioned prominently in economic-history classes, and perhaps in some industrial-organization ones as well. They typically are not included in our exposition of the theory of the firm.

Morck and Yeung survey an extensive literature about business groups, which appears to be extensions of Berle and Means (1932). The cited papers discuss agency problems and other

limitations of business groups; they do not explain why they exist. It could be for market power or more likely for political power. It could be to deal with limitations of the capital market. There seems to have been less research into the advantages of business groups, perhaps because data needed for hypothesis tests are hard to find.

Morck and Yeung report that business groups are associated with rapid growth among poor economies, but with slow growth in rich economies. This seems to be a statement about correlation rather than causation, judging from a footnote that suggests there may be bidirectional causality. Nonetheless, Morck and Yeung (II, 212) reach a striking conclusion: “These findings suggest that countries might become trapped in a ‘middle income trap,’ a stable and prolonged situation in which a few large business groups dominate an institutionally deficient economy and protect their dominance by capturing regulators.”

This brings us to the question posed by the contrasts between these two chapters. Allen discussed factor prices in a world populated by independent firms. The ownership of these firms was not relevant to his story. Morck and Yeung talk of ownership and control without much reference to factor prices. Which is more relevant for policy? If poor countries control their birth rate and raise wages, will they still be stuck mid-way in their development by business groups? Or is the evidence about business groups in poor countries picking up factor-price effects that impede economic growth?

This then is a problem posed by these essays on economic history. One way to read the chapters is as guides to current policy. Normally, there is little enough overlap to pit one chapter against another, although other collections of essays sometimes adopt that strategy. In this case, two very distinct chapters overlap in their policy provisions. It would be very helpful if this

conflict generated research designed to answer questions like those just posed. If we want to bring the residents of all countries up to decent incomes, should we look primarily to factor prices or primarily to business ownership?

The third paper I recommend to general economists confronts the question of helping less fortunate people within rather than between countries. Peter Lindert surveys private and public programs to help the poor over the century before 1980 in Chapter 14 of Volume 2. He supplies a short history of poor relief since the Industrial Revolution and some predictions for the future. This chapter provides any economist interested in current debates about the future of Medicare, Medicaid, Social Security, and smaller cousins of these massive programs with historical perspective on these debates.

Lindert starts his exploration by surveying theories of social insurance to find hypotheses that can be tested with rougher data but longer series of observations than the typical test in economic journals. These theories can be grouped into three types. First, relative prices. As it becomes cheaper to furnish social insurance and deal with free riders, then price theory suggests nations will respond to outward shifts in the supply curve to offer more social assistance. Second, the “warm glow” theory suggests people help those like themselves. This view harks back to Adam Smith, who asserted in *The Theory of Moral Sentiments* that we have more sympathy with family, community, and even nation than with foreign people, particularly far-flung people. And third, larger perceived needs, as in the Great Depression, will shift the demand curve for social assistance outward.

He supplies evidence for the first type of theory in Figure 2, which reproduces Figure 14.4 in the second volume of this collection (II, 487). This is not the cost of computing or

similar technical advancement; it is the cost of raising tax revenue. The cost of tax collection fell dramatically after 1850, spurring the use of tax revenues to provide social assistance to the poor. This figure, however, also poses the central question of Lindert's chapter, because the growth of public social assistance only began a century later. What was going on?

Lindert surveys the literature on opportunities for social assistance in the intervening century and argues that there were high social returns to be gained from schooling, nutrition supplements and health care in this time. He concludes that the "barrier that had to be removed was the concentration of political power into the hands of elites opposed to taxation for growth-enhancing public investment (p. II, 485)." Only after the political scene changed in the world wars and the Great Depression were these opportunities exploited. Public investment in the poor is largely a phenomenon of the second half of the twentieth century.

But we should not think of this dramatic change as permanent. Lindert notes that increased medical care has led to longer life spans. While children do not vote; old people do. There recently has been a switch to care for the elderly rather than the young. The arguments that these newer policies are growth-enhancing public investment are considerably less secure than the arguments for the policies implemented in the last century. In addition, the increasing inequality emphasized by Piketty (2014) threatens to turn back the political clock as well. With greater wealth, elites naturally seek greater political power. These two forces combine to make the question of social assistance today a difficult and tangled issue.

Lindert and Piketty are on the Morck and Yeung side of the debate about the barriers to economic development I alluded to above. They focus on the ownership of assets rather than factor prices, emphasizing capital as wealth. Their arguments appear indirect as they discuss the

structure of economies rather than their growth, but strategy follows structure (Chandler, 1962; Lamoreux, Raff and Temin, 2003). In this formative stage of the discussion, it is necessary to get the underlying model right, which brings us to the title of this collection.

### How old is capitalism?

Larry Neal opens the first volume of the *Cambridge History of Capitalism* by identifying a common aim in the essays: “to determine what features of modern capitalism were present in each time and place, and … why the various precursors of capitalism did not survive (I, 2).” I suggest that this is a limited approach to economic history, and present another approach, paradoxically also described in Neal’s introduction. Let us start by seeing how he defined capitalism.

Neal provides a checklist of the four elements of capitalism (I, 2):

1. Private property rights
2. Contracts enforced by third parties
3. Markets with responsive prices
4. Supportive governments

Over half of the chapters include capitalism in their titles, and many of them referred back to this list approvingly.

One question we might ask is how independent these four elements are. Hicks argued in *A Theory of Economic History* that they were connected. Describing the origin of trade, Hicks

said, “The merchant must have property in the things in which he trades; his right to that property must be identifiable. … Disputes will … arise, and there must be means of settling them, in order that contracts should be reliable. Legal (or at least quasi-legal) institutions are therefore required (Hicks, 1969, pp. 34-35).” Hicks added that early rules were supported by nascent merchant associations, often at odds with general governments.

In other words, almost all the elements will be observed if there is trade in an economy. As trade is observed as early as we have economic records, this makes capitalism ubiquitous. The only issue is how pervasive these rules were, which is very hard to judge from early evidence. The relations between merchants and governments have been complex and variable over time, and it is hard to disentangle them from other information.

Neal refined his definition to mitigate this problem by stating that the list referred to the treatment of capital, which he defined as follows: “a factor of production that is somehow physically embodied, whether in buildings and equipment, or in improvements to land, or in people with special knowledge (I, 3).” This list is very expansive. Including land improvements in capital is useful in modern economies, but these improvements—like trade—are observed starting very early. Neolithic farmers separated their fields from the forests of hunter-gatherers; did that make them capitalists?

When economists began to analyze growth, they distinguished only land and labor as factors of production. Both Malthus and Ricardo discussed the complexities introduced by the presence of limited land. Not until Marshall wrote almost a century later do we find simple models switching from land and labor to capital and labor. This change clearly was a response to the

industrialization described in the second of these volumes. Including land improvements in capital muddies the intellectual waters.

Including human capital also is useful in the analysis of modern economies but confusing when referred to older ones. As noted already, education was extremely limited before the Industrial Revolution, although skills of various kinds were ubiquitous. Including them in the definition of capital broadens capitalism to become ubiquitous.

Neal then invoked Douglass North's views of capitalism as an institution. This gets the discussion away from lists at the cost of complicating the analysis. What is an institution? North has been criticized for arguing that institutions impose limits on human freedom, and others have tried to give a more balanced view. Bromley (2006, Chapter 3) for example proposed a neutral definition: "Institutions define and specify opportunity sets, or fields of action, for the members of a going concern." They order our existence, providing "collective restraint, liberation, and expansion of individual action." They do this through ethics—enforced by moral sanctions of collective opinion—economizing and jurisprudence. In other words, institutions operate through private, economic and legal pathways.

Institutions therefore cannot be identified by a simple checklist. It is necessary to pay attention to behavior, private and public, to identify a capitalistic society. The first step in this process is to examine modes of behavior introduced by Hicks in *A Theory of Economic History* and summarized by Neal at the end of his introduction, appearing almost like an afterthought. They are cited in several chapters of Volume 1. The second step is to differentiate what Hicks called the mercantile economy from capitalism.

Hicks (1969, Chapter 2) distinguished what he called customary and command behavior by being bottom-up or top-down. Polanyi presented this framework with a sharper focus on economics and asserted that, “The main forms of integration in the human economy are ... reciprocity, redistribution, and exchange (Polanyi, 1977, pp. 35-36).” Reciprocity corresponds to Hicks’ customary economy. It is a mode of behavior in which people aim toward a rough balance between the goods and services they receive and that they give to others. Reciprocal obligations are determined by social obligations and traditions, and they change only slowly. Redistribution is a system in which goods “are collected in one hand and distributed by virtue of custom, law, or ad hoc central decision (Polanyi, 1977, p. 40).” This system is present in units as small as households, where it is known as householding, as well as in the taxation levied by modern states. The essential characteristic is that a central authority collects and distributes goods and services. This is the economic aspect of Hicks’ command economy. Exchange is the familiar economic transaction where people voluntarily exchange goods for each other or for money.

This tri-part schema corresponds also to a division of individual behavior. People even today rely on a mixture of behavioral modes, choosing which one to use as a result of internal and external forces (Temin, 1980). I assumed these forces can be represented on two dimensions. One dimension measures internal forces along an index of personal autonomy. The other dimension indexes the rapidity of change in the external environment. When people are less autonomous and change is slow, they typically utilize customary behavior. When change is rapid and personal autonomy is neither very high nor very low, then people use command behavior. When personal autonomy is high and the pace of change is moderate, people employ

instrumental behavior, that is, they have explicit goals in mind and make exchanges that advance their plans. These different modes of behavior correspond to the three types of organization used in economic life.

This model is shown in Figure 3. Straight lines are used for simplicity, but they only distinguish interior areas and the direction of boundaries; we cannot quantify the axes enough to see what actual curves would be like. But even this schematic diagram has important implications. Consider a relatively autonomous individual, probably more typical of the modern world than when we go back into history, who would show up as a horizontal line near the top of Figure 3. This person would use different modes of behavior in different situations. All of these situations may be present in any person's life. There is not much variation in the customs of going to work, shopping and eating. They may well be done customarily without much thought. At the other extreme, dramatic change as in a serious illness, a large fire or other disaster, the person may utilize command behavior, either leading or being led by another in this time of crisis. In between, there is plenty of room for this independent person to exercise instrumental market behavior.

Now consider how different people might respond to a similar rate of change in the environment, represented by a vertical line in Figure 3. Consider how it would look on the right-hand side of the diagram. The line shows how people react to a fairly high level of change in their environment, whether from fire, war or famine. The most community-minded people near the bottom of the diagram are likely to continue their accustomed activities, as described for a variety of societies in Diamond (2005). More autonomous people prefer to participate in some kind of command structure that is dealing with the change under way. This can be a fire brigade,

an army, or even a vigilante operation to deal with famine. The most autonomous people would seize the opportunity to engage in instrumental activity, that is, to undertake commercial ventures or take command of organizations that others join. In other words, people react differently to a common stimulus, utilizing different modes of behavior in accordance with their nature.

Several conclusions emerge from this little model. First, there are two types of tests we can use to discriminate between the various kinds of economies and organizations. We can look at individual actions, and we can analyze the nature of economies as a whole. Records of individual purchases give evidence of market activity and instrumental behavior. Turning to the other kind of test, we can see the importance of economy-wide patterns; for example, agrarian economies are dominated by customary behavior as the yearly cycle repeats itself. These two kinds of tests are complementary. The institutions of market economies and capitalism are multidimensional, involving personal, economic, and legal activities. We choose which kind of test to use depending on the available information, and we must remember to situate the specific tests we use in any observations we can make about other dimensions of the institutions in question.

Second, everyone uses all modes of behavior at some point. Even the consummate economist, Fischer Black, worked in hierarchical universities and companies on the one hand and dressed customary on the other hand (Mehrling, 2005). Many of us have families with their mixture of reciprocal and redistributive behaviors. Most of us also obey the laws to drive on the right-hand side of the road and pay our taxes. It is not the case that everyone behaves instrumentally all the time in a market or capitalist economy.

Third, the question of whether an economy at a given time is a customary, command or market economy is fundamentally a quantitative question. The question is not whether there is one kind of activity, but rather which mode of behavior dominates the economy. In other words, when decisions about resource allocation are being made, are they being made more by custom, command, or markets? When we observe a historical mode of behavior, how typical is it of that time and place? Has the evidence survived because it was abundant or because it was unusual?

These questions are relevant to the first volume of this *History of Capitalism*. After 1848, most of the economies described were dominated by market activity. Before then, historians must seek quantitative tests that do not require extensive data. Our conceptual framework should be clear so that we can use the scarce information to suggest a quantitative result.

There is also another issue relevant to Volume 1. The modes of behavior have been described for individual activities; there is no mention of capitalism. Several of the contributing authors however define capitalism in their chapters. R. B. Wong asserts that capitalist economies have “large firms able to amass large amounts of capital (I, 126).” Oscar Gelderblom and Joost Jonker say, “One of the key [attributes] of capitalism is the extent to which people work for wages (I, 323).” Mark Harrison explains that Ricardo used “capitalist” to distinguish owners of capital from landowners (II, 350). And Jeffrey Frieden and Ronald Rogowski claim: “Since the emergence in the late 1700s, modern capitalism has been the focus of intense controversy (II, 384).”

I synthesize these comments to define capitalism as distinct from the larger category of market economy in two ways. First, there should be capital as Neal asserted in his introduction.

But instead of the all-inclusive definition he used, capitalism includes only business capital, the capital involved in commerce and industry. This restriction echoes the change in simple economic theories from land to capital as the factor of production that worked with labor, which followed the growth of capitalism.

Second, in order to make the test quantitative, to assure that this restricted category of capital was widely used, there must be wage earners in a capitalist economy. Farmers working on a manor or family farm typically were compensated in more flexible ways to deal with the vagaries of harvests. Workers in factories and related places of business were far more likely to be paid wages. These conditions may be used as a checklist, but they are better seen as shorthand to indicate complex changes in economic behavior, morals, and jurisprudence (Bromley, 2006).

Capitalism then represents a subset of the market economies that preceded it. The Industrial Revolution stimulated workers to engage in commerce and artisanal production of various sorts, and instrumental behavior replaced some of the customary behavior of agriculture. The spread of factories, and particularly the spread of large factories in what is described in Volume 2 of the *History of Capitalism* as the Second Industrial Revolution of the late nineteenth century, meant that many workers were engaged primarily in command behavior. They had to show up on time, eat when allowed, and follow the dictates of their bosses in their work. Ironically, the growth of capitalism reduced the scope of market economies—not in the determinants of resource allocation, but in the experiences of most people. English cotton factories grew before 1848 in what should be regarded as the actual birth of capitalism.

This discussion implies that most of the economies described in Volume 1 of this *History Capitalism* were not capitalist. Many of them were market economies, but they generally lacked the additional characteristics of capitalist economies before 1848. As Hicks said in the course of describing traders at the origin of trade, “We do not have to make any special assumption about ‘capitalist mentality’ in order to conclude that some of them will use a part of their profit … to expand their trade (Hicks, 1969, p. 45).”

Similarly, we can observe customary behavior in Paris just after 1848. Zola (1876) described a feast held in the 1850s by a Paris laundress for her family, fellow artisans and friends that resembles closely what Sahlins (1972) described as the “social refrigerator” for stone-age people (*mutatis mutandis*). When hunters in primitive societies killed a large animal, they invited the village to eat because they lacked refrigeration and expected their friends to reciprocate. Zola’s heroine did not kill a bison, but she took her turn in her Paris neighborhood.

Volume 1 contains descriptions of customary, command and market economies, stressing of course the last of these categories. It does not describe capitalist economies despite its inclusion in a history of capitalism.

### Chapters of Volume 2

Now it is time to turn to the individual papers in *The Cambridge History of Capitalism*. It is a fine collection of papers by accomplished economic historians, each of whom summarizes the current state of knowledge in his area of specialization. (Only one woman is represented in each volume.) As there are well over thirty chapters in these dense volumes, it would be tedious to

describe them in order. In the spirit of Leontief (1963), I survey them in reverse, starting from the end of Volume 2 and progressing backwards to the beginning of Volume 1, grouping the articles into groups of three or four to provide coherence to the discussion.

The last group of chapters (albeit first in this survey) consists of the last four substantive chapters of Volume 2. They function as a kind of summary of the preceding arguments showing the effect of the spread of capitalism and industrialization on the lives of ordinary people. The first chapter in this group by Jeffrey Frieden and Ronald Rogowski provides a comprehensive summary account of the rise and spread of capitalism in the last three centuries. They group the peacetime history into several periods, in each of which they discuss the “enthusiasts” for the activities of the time and then the rejectionists and/or skeptics to the progress of capitalism. This chapter, if available separately on an electronic platform, will make a fine introductory reading for any economics course that wants to set its material in a wide historical setting.

This standard history is followed by a history of labor unions by Michael Huberman, the growth of the welfare state by Peter Lindert and the progress of welfare as summarized by the Human Development Index (HDI) by Leandro Prados. Taken together, they complement the account of economic regimes by Frieden and Rogowski by providing information about the spread of benefits to the population as a whole. Given their place at the end of Volume 2, they can be taken as conclusions to the preceding chapters, but they also may seem to exhaust readers as an afterthought to the standard narrative.

Huberman makes clear that the spread of the benefits of capitalism to working people was not an automatic effect of capitalist growth. It was rather the result of political and economic struggles between capitalists and their workers that had varied outcomes in different countries.

The overall history describes an arc, similar to the growth of manufacturing in the spread of industrialization and its decline—particularly in the West—as we move into a post-industrial globalized world. Huberman closes with cautious optimism about the future of unions.

Lindert's chapter, described more fully in the previous section, also describes an arc in the development of public assistance. As with Huberman, the growth of capitalism has led to problems with the continuation of the public assistance. But while Huberman focused on globalization, Lindert concentrates on the health and longevity of individuals.

Prados uses the HDI, composed of per-capita income, education, and longevity, to describe the effects of economic growth around the world. This measure indicates the familiar divergence in the past generation as globalization affects the OECD and the rest of the world differently. It expands our view from simply GDP to include health and education, showing that health improvement is now declining in importance relative to income and education.

The three preceding chapters deviate from this overall optimistic narrative to describe rough spots in the progress of capitalism. Harold James provides a narrative of international economic relations separated into periods. But while Frieden and Rogowski tread lightly over the first half of the twentieth century, James focuses on it. He evaluates the role of international monetary arrangements in the interwar period and their progress in the latter half of the century. True to title of this historical volume, James largely ignores the non-capitalist communists and fascists.

Austin investigates the roles of colonies, starting from Marx's assertion that colonies contributed to the spread of capitalism by uprooting pre-capitalist institutions. Filled with examples that illustrate the variety of colonial experience, this chapter takes a different view.

Although colonies aided British industrialization, they also impeded the spread of industry outside of Europe. Colonialism led to de-industrialization in India and elsewhere, contributing to the growing diversity of incomes noted in other chapters.

Harrison's chapter focuses on the economic effects of wars. In contrast to most chapters that ignore wars as interruptions to the sweep of history, this chapter returns to the framework of conventional history and emphasizes the economic role of wars. Asking whether capitalism favors war or profits from war, he finds only weak support for positive answers to these suggestions. While the world wars loom large in our histories, we are fortunate that large wars have become infrequent enough to let the diversity of experience overwhelm many generalizations about the causes and effects of wars (Pinker, 2011).

The next three chapters, working backward through Volume 2, turn us away from national affairs to business ones—to the stuff of capitalism, as it were. Geoffrey Jones examines multi-national companies. Morck and Yeung, as described earlier, look at business groups. And Ranald Michie surveys international transfers of money. These topics are all results of the formation of nations, being measured within and between countries, but their unit of analysis is firms of one sort or another.

Michie surveys the history of bills of exchange. He does not extoll their efficiency over many centuries or explain the intricacies of their use. Instead, he chronicles their replacement by government transfers in the world wars. They did not recover their former place in international finance after the wars, being replaced by tools used by the large firms analyzed in the other two essays of this group. He compares two kinds of banking systems, universal banks or a system of branches and banking networks. They both work, without a clear leader in this telling. While

praising the innovativeness of finance since the Industrial Revolution, Michie also cautions us in evocative words for today: “[F]inancial capitalism also possessed seeds of its own destruction, resulting in successive crises which had the effect of destroying many of the gains made in previous years, and some of these were of such magnitude that their consequences were both deep and prolonged (II, 261).”

Morck and Yeung on one hand and Jones on the other describe large business entities. Morck and Yeung look at the common ownership of different companies, while Jones looks at the activities of single firms active in different countries. It seems on the surface that Morck and Yeung are looking at domestic business organizations, while Jones is examining international business organizations. It is not clear to the outsider of this field why one form or the other was chosen in a particular instance. Perhaps it would be useful to compare the efficiency of these alternate arrangements in some comparable settings. Morck and Yeung use agency theory to criticize the use of business groups; were those same problems present in multi-national firms?

Jones reports that multi-national firms were important in the growth of globalization. They were very good at transferring money around the world, as indicated also by Michie, but less skilled in transferring technology around the world. It is beyond the scope of this chapter to inquire why the transfer of technology was difficult, but one possible reason is the different factor prices in the home and foreign countries. Allen argues that the barrier to the spread of industrialization was not lack of finance, but rather lack of appropriate technology. Jones notes that multi-national companies originated in the earlier stages of industrialization and were based in early industrializers. They now have been joined by multi-national based in China, India and

other developing countries. It will be a test of Allen's views to see if the growth of these firms leads to the spread of industrial technology.

The final group of chapters to discuss in Volume 2 includes the first ones in the volume. Allen's contribution has already been described. It is complemented by a chapter on the growth of agriculture by Giovanni Federico which opens with the claim that, "cities could not have developed without the commercialization of agriculture (II, 47)." Agricultural output increased as cities grew during industrialization. This started out as extensive growth as trade allowed more lands to be tilled in more places and sent to cities. It changed to intensive growth around 1950 as labor productivity in agriculture began to increase as well. Americans date the closing of the frontier and the beginning of intensive growth for the economy as a whole a half-century earlier. Agriculture followed on a world scale with a lag.

There is a problem in the contrast between this chapter and the following ones on multi-national firms and business groups. Federico argues that small productive units continue to dominate agriculture: "[A]griculture has remained dominated by small productive units managed by single households, not by giant corporations (II, 78)." Governments have served as a counter-weight to the corporations to protect farmers, although Federico claims the government sometimes taxes consumers to support farmers. But this contrast suggests also that we may be drawing the boundary of agriculture too tightly for the modern world. Agro-business and transport are both essential to the growth of agricultural production and its distribution to consumers. Perhaps history would be clearer if "agriculture" included them and exposed parallels with other large companies, with farmers as a competitive fringe of small suppliers. Is modern agriculture more like modern mining than pre-industrial agriculture?

Kristine Bruland and David Mowery expand Allen's story of the spread of industrialization by describing a second generation of technical innovations. Speaking of a Second Industrial Revolution between 1870 and 1914, they identified three industries to match cotton textiles, iron and the steam engine a century earlier: the internal combustion engine, electric power and light, and organic chemicals (II, 86). These innovations still dominate our lives today if we count antibiotics and the resulting increase in the HDI as highly productive parts of the organic chemical industry.

Bruland and Mowery argue that governments supported and helped to institutionalize continuing productivity in these and other industries. Starting before the First World War, government expanded during the war and stayed high. Government followed this pattern in agriculture, as just noted, although it may have focused more on preserving old practices there and newer practices here. In both cases, however, they show that modern capitalism is not simply a private affair. The institutions of capitalism are a combination of private and public initiatives, organizations and rules, as noted in the previous section of this review.

The involvement of government, Neal's fourth component of capitalism, was deemed important enough to merit its own chapter. Ron Harris completes the first group of chapters in Volume 2 in an attempt to discover what kind of laws promote economic progress. He argues that law was transformed in the nineteenth century to deal with new problems posed by agricultural expansion and new industries. There were, as noted prominently in the economic literature of the past few decades, two legal traditions in industrialized countries. The common law was the basis of English law, while Roman law was the basis of continental European law. In each case, neighbors and colonies adopted the legal tradition of the countries they were tied to.

There has been a lively debate as to which tradition was most conducive to economic growth, but Harris concludes that, “no consensus emerged as to the first best rules and institutions (II, 162).”

This brings us to the beginning of Volume 2 and the end of the chapters it contains. The chapters described here were introduced by Kevin O’Rourke and Jeffrey Williamson and followed by an essay on the future of capitalism by Neal and Williamson. They note in the latter essay that these volumes were planned before the Global Financial Crisis of 2008 and published after them. This raises questions about the future of capitalism that the editors pose without comment.

### Chapters of Volume 1

I turn now to Volume 1, which I argue above should be seen as the growth of what Hicks called the mercantile economy and I called a market economy (Temin, 2013). Capitalism as I have defined it, and I think the common use concurs, does not appear until Chapter 3 of Volume 2. Only in the Second Industrial Revolution of the second half of the nineteenth century do the quantity of business capital and the factories that produce items made from the new technology get large enough to speak of capitalism, heralded by Marx in 1848.

This volume is organized more coherently than Volume 2. It consists of three groups of chapters that describe ancient economies, economies of early-modern Europe, and the Industrial Revolution. Separating these sections are groups of chapters surveying economies outside Europe. The first intermediate group looks at the Silk Road, China, India, and the Middle East. The second intermediate group describes Latin America, Africa, and Native American Indians. I

maintain the practice of working backward through the volume, but I will go forward within each group.

The ending three chapters of Volume 1 provide a fuller account of the Industrial Revolution than Allen's brief restatement at the start of Volume 2. C. Knick Harley reviews the extensive literature on the Industrial Revolution, from the statistical innovations by Deane and Cole to the more abstract arguments of Brenner and Gerschenkron. He describes the innovations of the Industrial Revolution and the first stages of the spread of industrialization within Europe. He stresses the long preparation for industrialization that is only summarized in Figure 1, taken from Harley's chapter. The efficiency of English agriculture, the urbanization that this allowed, and the growing international trade that attracted workers to urban activities all were part of the story of British progress. Although Harley's and Allen's essays are in different volumes of this collection, the thoughts and analyses they contain flow easily from one to the other.

Jeremy Atack follows with a rousing account of American economic growth. We tend to think of France and Belgium as Britain's closest neighbors, but North America was economically also contiguous to the British Isles. Culturally, the United States was of course even closer than the Continent. Harley's account of pre-conditions is echoed by Atack's description of American society, and Allen's Standard Model describes American policies. With British institutions and American resources, Atack argues that progress and prosperity were inevitable.

José Luis Cardoso rounds out the account of early industrialization by examining the changes in ideas and doctrines that accompanied this dramatic change. He traces the intellectual path from Mercantilism to Laissez-faire, discusses the setting and contributions of Smith, Malthus and Ricardo, and introduces Say's ideas of aggregate supply and demand. He closes his chapter and

the volume by noting the publication in 1848 of both Marx's *Communist Manifesto* and Mill's *Principles of Political Economy*. While Marx built on previous ideas to predict doom and conflict due to diminishing returns and limited resources, Mill drew on changes in the economy to predict economic progress that would lead to better, not worse, conditions. The attentive reader can see the world shifting underfoot in the mid-nineteenth century.

Before we go on to descriptions of the build-up to these changes, three chapters urge us to pause to consider the rest of the world. They each focus on the effects of the expansion of Europe on regions that did not industrialize in the early nineteenth century. Richard Salvucci argues that markets were ubiquitous in Mesoamerica, but they did not dominate economic activity enough to be market economies (I, 405). He describes the European use of Latin America primarily as a mining camp, taking out gold from the indigenous settlers, silver from the ground and agricultural products from the plains and tropics of South America. Given the time frame of Volume 1, he only alludes briefly to the controversy that has swirled around the long-run effects on that area.

The other two chapters in this group focus on the organization of economic activity separate from the effects of Europe, although they all refer to questions in the recent development literature about the disturbance from the invaders. Morten Jerven argues that there was a lot of Hicksian market activity in indigenous Africa, but nothing like capitalism. Ann Carlos and Frank Lewis argue that the Native American economy was even more primitive, closer to Hicks' customary economy. Native Americans were primarily hunters and gatherers, and the gift giving and other interactions that characterize their activities were the practices that Hicks drew on for his theory. There also was the adaptation of customary gift giving to promote more modern fur

trading in North America, but this was not the major economic activity, even though it generated most of the surviving data.

Africa was more advanced, and Jerven refers back to Polanyi's version of the Hicksian triad to describe the literature. He argues for the presence of trade in products, the first stage in Hicks' progress of the market, in various places. Instead of Polanyi's conclusion that markets were absent before industrialization, Jerven describes pockets of markets in a basically customary agricultural economy, albeit for products, not factors of production, rather like Salvucci's description of Latin America. This more complex view provides concrete examples for the early stages of market development that Hicks described with European history in mind. This chapter raises questions about the development of factor markets in the early stages of markets that were considered only briefly by Hicks.

Returning to the main European narrative, we find chapters on the early modern period. Karl Gunnar Persson's chapter on the medieval economy provides a kind of bridge between the chapters on outlying areas just described and the main narrative because it deals with Europe dealing with "the ruins left by the disintegrated Roman empire (I, 225)" at the start of the second millennium CE. How far had Europe come in the next half-millennium? The chapter concludes that the progress showed "capitalism in its infancy (I, 260-61)."

The newness of this view is shown by the absence of Bloch's classic *Feudal Society* (1961) from this chapter and its bibliography. Bloch explained how Europe managed to begin the process of recovery in the Roman ruins, moving from chaos to some kind of defense based on a land-based system of service that developed into what has been called feudalism. Bloch

explained the set-up for Shakespeare's *King Lear*, where kings had to move to food instead of food moving to kings because it was safer to move a few armed men than a bulk cargo of grain.

None of this is in this chapter. Instead, we learn about fledgling goods markets, the decline of serfdom, and even the occasional land sale. The reader assumes there must have been some reason for the introduction of, say, serfdom, but he or she will not find it here. This chapter shows the effect of focusing on the rise of capitalism noted in the previous section. It puts the focus on nascent activities in early periods that anticipate later changes rather than on the primary activities of people in the period under observation. This chapter flattens out history to make a simple monotonic—albeit slow moving—process toward the pinnacle of capitalism. It fails to celebrate the uniqueness of the economic arrangements of medieval Europe. Gunnar Persson however reiterates the quantitative issue raised in the last section: “The essential question is not whether markets existed but how penetrating markets were in daily life (I, 227).” And this explains why, despite his enthusiasm, he finds only capitalism in its infancy in medieval Europe.

The following chapter by Luciano Pezzolo describes the economy of another part of Europe in the same medieval time. Pezzolo argues that the great trading cities of Italy trod the early path toward capitalism. This was the path to a mercantile economy that Hicks (1969, Chapter 3) outlined in his theory, and Italy provides an example—perhaps the only example—of this historical development.

Pezzolo focuses on Venice, Genoa and Florence, the triad of great trading cities. This of course is where the records are, and they are exploited well in this chapter. But this focus raises an uncomfortable question. Is the development of a mercantile economy dependent on the path

of three cities? Is there a small population of successful cities with the attendant randomness in Hicks' theory? Of course, there was only one Industrial Revolution, and we must make do with the history we have.

The process Pezzolo chronicles is the process that Hicks outlined. Merchants were in control of politics in these cities, and they adapted laws and procedures to further their commercial activities. Elsewhere in medieval Europe, market activity was the exception rather than the rule, as Gunnar Persson described. But in Italy at the same time, commerce and the trappings of modern trading systems were evolving.

Oscar Gelderblom and Joost Jonker continue this story into the early modern period in the next chapter, but returning to northern Europe. This hop-scotching around Europe provides coverage of the continent, but it raises questions about causation. Pezzolo sees Italy as the cradle of commerce, but Gelderblom and Jonker point to developments elsewhere. They both point to trade as the stimulus for economic growth, but first in the Mediterranean Sea and then in the Atlantic Ocean. It may be asking too much of a collection like this to draw the connections.

Their discussion of trade is complemented by Patrick O'Brien's account of Britain. Observing that trade and therefore growth is largely a peacetime activity, he tries to square this view with Britain's many wars in the early modern period. O'Brien argues that the British navy was the key to British economic success. By its use, Britain's wars could be kept away from Britain itself, inhibiting progress elsewhere while allowing the British economy to prosper.

Before we can search further for this story, we must acknowledge the editors' device of looking around the world periodically. In the first of them—and so the last to be described—

Étienne de la Vaissière recounts the rise and decline of the Silk Road, the overland route from Europe to the East. Pezzolo and Gerlderblom and Jonker regard seaborne trade as the source of progress, and Vaissière seems to agree. R. B. Wong describes “China before capitalism” as having few large landowners and no large commercial firms. He says that in China, “It is not easy to make a clear distinction between custom, market and command in the manner conceived by Hicks (I, 151).” Tirthankar Roy provides a view of India that is more political than economic, explaining how the Mutiny (of the mid nineteenth century) resulted in making India into a British colony. Sevket Pamuk argues that the Middle East prospered in the eighth through the eleventh centuries, but then fell behind Europe. The following chapters by Gunnar Persson and Pezzolo—already described—celebrate vigorous growth in Medieval Europe. Pamuk describes institutional change in the Ottoman Empire, but acknowledges the limited political power of merchants. There was no Middle Eastern analog of the Italian city states.

We now pick up the beginning of the story of Volume 1 in ancient economies. We can tie the three first chapters together by referring to Hicks’ phases of mercantile development (Hicks, 1969, pp. 61-62). The first stage has merchants trading in an economy that was largely non-mercantile, using custom or command. The second phase has merchants in city states, where they are strong enough to bring city states and their governments into mercantile activities. And the final, modern phase is where mercantile activity pervades an entire country. The three chapters on antiquity trace out this progression.

Michael Jursa describes economic progress in Babylonia during “the long sixth century” BCE. He describes merchant activity, but does not assert that the whole economy was engaged in this activity. Alain Bresson describes the growth of Greek city states in Greece’s golden age.

Hicks cited Greece in support of his theory, and Bresson fills in some of the history of this second phase of mercantile activity. Willem Jongman goes on to describe the early Roman empire as the third, modern phase of mercantile development.

Jongman confines himself to showing the increase in the quantity and quality of Roman consumption. He neglects the mercantile part of the generation of this prosperity. The Pax Romana extended around the Mediterranean Sea and allowed Roman provinces to specialize in products where they had a comparative advantage. “The city of Rome stood at the peak of a pyramid of rising [wheat] prices (Hopkins, 2009, p. 191).” This pyramid reveals the existence of enough Mediterranean trade to make provincial wheat prices approximate the price in Rome minus the cost of transportation. The resulting regional specialization must have increased living standards by itself, although recent research has found evidence of technical change as well. Jongman’s information reveals the looseness of the Malthusian model; there was room for sustained high incomes before the Industrial Revolution.

To end this survey on a high note, I estimated—on the basis of very scant Roman data—that per-capita incomes in first century Roman *Italy* were as high as per-capita income in early modern Holland, bringing Gelderblom and Jonker together with Jongman (Temin, 2013, Chapter 11). But while both of these prosperous places were exceptional in pre-industrial history, neither of them gave rise to the Industrial Revolution. We return to Allen’s chapter in Volume 2 for the most likely reason. They did not have Britain’s combination of high wages and cheap power. Holland used peat, an expensive fuel, and Rome used manpower with only a little water power. Just high wages in a progressive economy was not sufficient; cheap power was also needed to move mercantile or market economies into industrial ones.

## Conclusions

*The Cambridge History of Capitalism* is a high-quality addition to the previous Cambridge histories of other ideas, places and times. The many chapters are written by senior scholars who survey topics with mastery and erudition. Like other Cambridge histories, this is a good reference work.

As a collection of essays, this two-volume work turns out to contain two distinct arguments. The second volume surveys the spread of capitalism since the Industrial Revolution. The first volume surveys the extent of markets and market economies in the previous two or more millennia. The second volume takes its underlying model from Douglass North; the first volume, from John Hicks. The second volume has econometrics and other hypothesis tests in the background. The first volume is based on case studies and often sparse underlying data. The second volume will be a useful reference for economists; the first volume will be of interest primarily to economic historians.

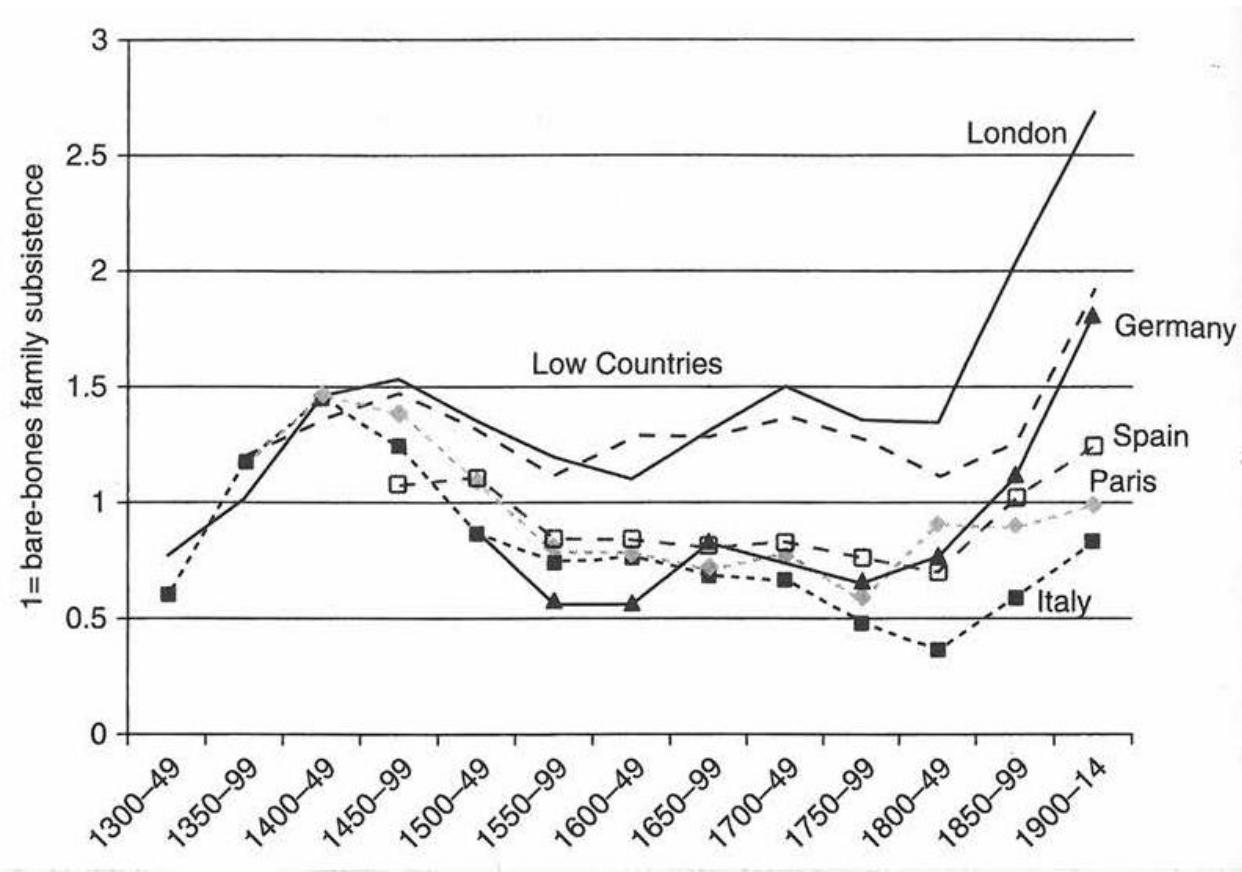
The first volume suffers from the attempt to make it look like the second. The repeated references to capitalism in economies that lacked industrial capital and wage labor are confusing. Instead of making economies in different places and times distinct, this modern term in chapter titles and texts makes chapters into one-dimensional measures of capitalist tendencies. Some authors transcend this organization, but the narrow focus reduces the value of Volume 1.

Why was Volume 1 forced into this Procrustean bed? One possibility is that this history was commissioned to glorify capitalism as the natural and even inevitable organization of economic

activity. If this presentation is used to oppose economic regulation or concerted effort to combat global warming, it will be seen as a very restricted view of history.

Figure 1

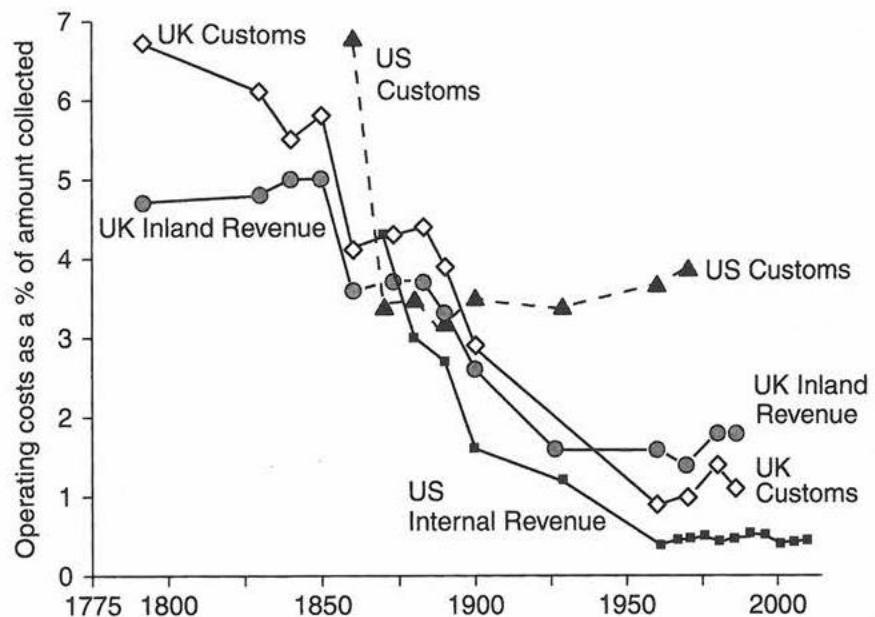
Urban real wage Europe, laborers, fourteenth to twentieth centuries



Source: Neal and Williamson, 2014, Vol. 1, p. 496 (Harley).

Figure 2

Tax collection costs as a percentage of the amounts collected by central governments, United States and United Kingdom, 1787/96-2011.

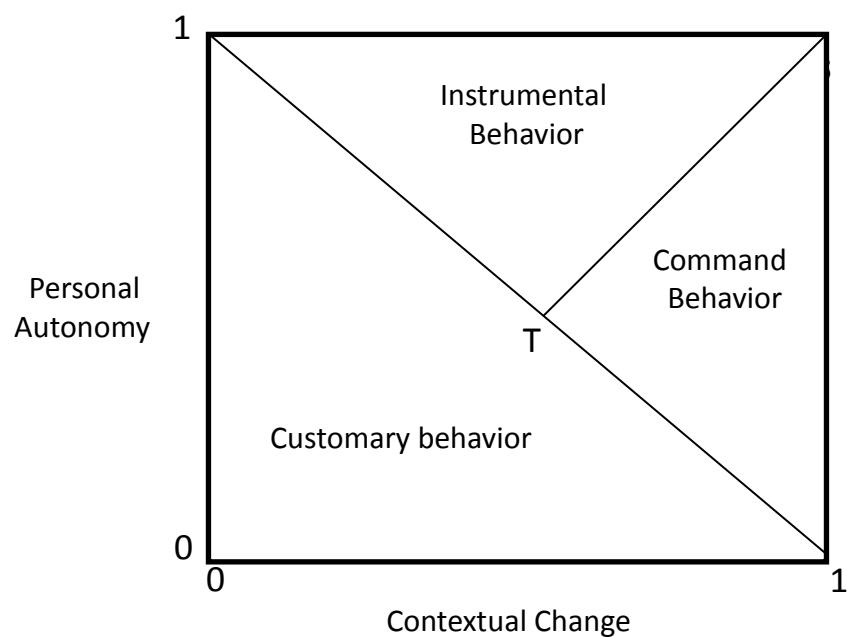


Source: Neal and Williamson, 2014, Vol. 2, p. 487 (Lindert).

Figure 3

Modes of Behavior

Source: Temin, 1980.



## References

- Alesina, Alberto F., Paola Giuliano, and Nathan Nunn, “On the Origin of Gender Roles: Women and Plough,” *Quarterly Journal of Economics*, 128 (2013), 469-530.
- Allen, Robert C., “The Great Divergence in European Wages and Prices from the Middle Ages to the First World War,” *Explorations in Economic History*, 38 (October 2001), 411-47.
- Allen, Robert C., *The British Industrial Revolution in Global Perspective* (Cambridge: Cambridge University Press, 2009).
- Allen, Robert C., *Global Economic History: A Very Short Introduction* (Oxford: Oxford University Press, 2011).
- Ashton, T. S., *The Industrial Revolution* (London: Oxford University Press, 1948).
- Sven Beckert, Angus Burgin, Peter James Hudson, Louis Hyman, Naomi Lamoreaux, Scott Marler, Stephen Mihm, Julia Ott, Philip Scranton, and Elizabeth Tandy Shermer, “The History of Capitalism,” *Journal of American History*, 101:2 (September 2014), 503–36.
- Berle, Adolf A., Jr. and Gardner C. Means, *The Modern Corporation and Private Property* (New York: Macmillan, 1932).
- Bloch, Marc, *Feudal Society* (Chicago: University of Chicago Press, 1961).
- Bromley, Daniel W., *Sufficient Reason* (Princeton: Princeton University Press, 2006).

Chandler, Alfred D., *Strategy and Structure: Chapters in the Industrial Enterprise* (Cambridge: MIT Press, 1962).

Dennison, Tracy, and Sheilagh Ogilvie, “Does the European Marriage Pattern Explain Economic Growth?” *Journal of Economic History*, 74 (September 2014), 651-93.

Diamond, Jared M., *Collapse: How Societies Choose to Fail or Succeed* (New York: Viking, 2005).

Galor, Oded, *Unified Growth Theory* (Princeton: Princeton University Press, 2011).

Hajnal, John, “European Marriage Patterns in Perspective,” in David V. Glass and David E. C. Eversley (eds.), *Population in History* (London: Edward Arnold, 1965).

Hicks, John, *A Theory of Economic History* (London: Oxford University Press, 1969).

Hopkins, Keith, “The Political Economy of the Roman Empire,” in Ian Morris and Walter Scheidel (eds.), *The Dynamics of Ancient Empires* (New York: Oxford University Press, 2009), pp. 178-204.

Lamoreaux, Naomi R., Daniel M. G. Raff, and Peter Temin, “Beyond Markets and Hierarchies: Toward a New Synthesis of American Business History,” *American Historical Review*, 108 (April 2003), 404-33.

La Porta, R., F. Lopez-de-Silanes, and A. Shleifer, “Corporate Ownership around the World,” *Journal of Finance*, 114 (1999), 1193-1242.

Leontief, Wassily, “When Should History be Written Backwards?” *Economic History Review*, 16 (1963), 1-8.

Mehrling, Perry, *Fischer Black and the Revolutionary Idea of Finance* (Hoboken, NJ: Wiley, 2005).

Mokyr, Joel, *The Enlightened Economy: An Economic History of Britain, 1750-1850* (New Haven: Yale University Press, 2009).

More, Thomas, Saint, 1478-1535, *Utopia* (London: Penguin, 2012).

Neal, Larry, and Jeffrey G. Williamson (eds.), *The Cambridge History of Capitalism* (Cambridge: Cambridge University Press, 2014).

Piketty, Thomas, *Capital in the Twenty-First Century* (Cambridge, Harvard University Press, 2014).

Pinker, Steven, *The Better Angels of our Nature: Why Violence has Declined* (New York: Penguin, 2011).

Polanyi, Karl, *The Livelihood of Man* (New York: Academic Press, 1977).

Rostow, W. W., *The Stages of Economic Growth: A Non-Communist Manifesto* (Cambridge: Cambridge University Press, 1960).

Sahlins, Marshall, *Stone Age Economics* (Chicago: Aldine-Atherton, 1972).

Temin, Peter, “Modes of Behavior,” *Journal of Economic Behavior and Organization*, 1 (June 1980), 175-195.

Temin, Peter, *The Roman Market Economy* (Princeton: Princeton University Press, 2013).

Voitländer Nico, and Hans-Joachim Voth, “How the West ‘Invented’ Fertility Restriction,”  
*American Economic Review*, 103 (2013), 2227-64.

Zola, Émile, *L'Assommoir (The Drinking Den)* (London: Penguin, 2000 [1876]).