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Historical Demography and the Crisis of the Seventeenth Century

This volume turns its attention, once again, to the much-debated and seemingly difficult to live without, concept of the “crisis of the seventeenth century.” The initial articulation of the crisis comes from Hobsbawm in the pages of *Past & Present* (1954). He used it in an effort to explain the commercial collapse and retrenchment of productive capacity in both the agricultural and industrial sectors of the European economy from the 1620s through the 1640s. Hobsbawm, however, had a larger agenda—to breathe fresh life into what had become a rather stale debate between Marxist historians about the proper way to understand the European economy in its “transition from feudalism to capitalism.” But as will be amply demonstrated in the pages that follow, the crisis concept was quickly captured by an eclectic mix of other (that is, non-Marxist and noneconomic) historians and transformed into a true “general” crisis of the seventeenth century. As such, it has lived ever since. Although widely decried as too general to be believable, too wrong in its specifics to carry validity, and even too vague to mean much of anything at all, it remains, nonetheless, an indispensable organizing principle for the division of historical time, as even a passing glance at the recent literature centered in early modern Europe reveals.¹

Historical demography, the study of past population dynamics, is an endeavor that is especially susceptible to the problems of dividing time into measurable, yet still meaningful, units. The statistical analysis of highly variable time-trend data—for example, fertility, mortality, and rates of natural increase—is acutely sensitive to the selection of starting and ending points; even small differences can radically change the appearance of one’s findings.

Anne E. C. McCants is Professor of History and MacVicar Faculty Fellow, MIT. She is the author of *Civic Charity in a Golden Age: Orphan Care in Early Modern Amsterdam* (Urbana, 1997); “After-Death Inventories as a Source for the Study of Material Culture, Economic Well-Being, and Household Formation Among the Poor of 18th c. Amsterdam,” *Historical Methods*, XXXIX (2006), 10–23.

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The selection of an appropriate time scale for different types of questions is likewise critical. Some phenomena are best captured by attention to short-term fluctuations, whereas others require a longer (and likely smoother) view, particularly if we want to tease out long-term secular change from any underlying long-term (sometimes deceptively so) cyclical processes. But as John Maynard Keynes so famously quipped in *A Tract on Monetary Reform* (London, 1923), “in the long run we are all dead,” reminding even demographers that at the level of the household, the most important events are those that either add or subtract members in the here and now. Hence, any discussion of the key issues in historical demography has to start with the dual problems of periodization and relevant time scale.

When Carr asked, “What is History?” in 1967, the answer was simple, if not exactly straightforward. In the “commonsense view,” history is the narrative of human experience and the explanation of why or how things change or stay the same. But both narratives and explanations of change (or stasis) over time require organizing principles if they are to be comprehensible at all. Another commonsense critique of the discipline, especially as it is taught to undergraduate students—that “history is just one damn thing after another”—is especially charged in regard to historical demographers’ need to accumulate substantial runs of discrete facts. If for no other reason than simply to break up the long span of events into digestible parts, historians are forced to rely on conventions of periodization; that is, they must make a priori decisions about when and where to start and end their stories or their analyses. Ideally, these break points should be either a matter of convenience—not informative in their own right about the conclusions of historical scholarship—or they should be selected deliberately and “correctly” on the basis of their historical coherence. But, alas, the former strategy turns out to be impossible, and the latter a tautology. Analysis cannot exist independently from the choice of boundaries. Hence, the professional anxiety about periodization.²

Not surprisingly, phenomena characterized by the most dramatic change evoke the greatest anxiety for historians in regards to boundary setting. For that reason, the periodization of what we

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call “early modern Europe” remains a terrible “muddle,” to quote from the evocative title of a review essay on this subject written by Starn in 2002. However we slice it, the early modern period has to account for a number of truly momentous changes. Most fundamentally, it is the locus of the transition to modernity, thus encompassing a number of possible readings depending on the particular flash points of the sub-field under study: pre-industrial to industrial, or premodern economy to modern economic growth; Malthusian to post-Malthusian, or natural-fertility regime to demographic transition; Renaissance to Enlightenment, or superstitious to scientific method; organically powered to inorganically powered, etc. Surely, these transitions transpired in some meaningful sense; they are facts, even if vague ones. Our world—in the industrialized West, anyway—is demonstrably different from the earlier one. But how do we date “earlier” or “later,” and, worse, how do we explain the move from one to the other?

A crisis, by definition, is ideally suited to explaining a transition, even if it can do so only metaphorically; its clear chronological necessity resonates perfectly with the kind of narrative analysis that is at the center of the historical enterprise. A crisis must first arise out of some kind of a steady state (the stresses and strains of which are often as unnoticed as they are resisted), which is made acute in a moment of critical alteration (or decision), all of which is followed by a resolution to a new steady state. What is a better term than crisis to describe changes as momentous as those that ushered in the modern world? Historians’ recourse to the crisis concept for the seventeenth century across the various sub-fields of their discipline may not be surprising after all. As the contributions to this special issue make evident, the language of crisis had appeal to cultural, demographic, economic, intellectual, political, and social historians alike.

4 See Donald Cuthbert Coleman, “Protoindustrialization: A Concept Too Many,” Economic History Review, V (1983), 446, for a trenchant critique of economic historians’ use of deliberately vague metaphors as the explanatory mechanisms for many of their most important objects of study, including this very transition denoted by the Marxists between feudalism and capitalism. Starn, in a relatively early contribution to the crisis debate in “Historians and ‘Crisis,’” Past & Present, 52 (1971), 13–16, offers a number of other plausible reasons why historians may have been so eager to adopt the terminology of a crisis, most of which cast the intellectual underpinnings of a turn to social-scientific discourse among historians in an unfavorable light.
But despite the temptation, we cannot rely on the crisis concept to do all of the desired work on its own. To be explanatory of observed change, a crisis must have comprehensible origins. There must be a way to account for the disruption of the prior steady state—either by invoking an easily identifiable exogenous shock from outside the system or by explaining it as a result of complex endogenous forces emanating out of what might have been only an illusory steady state preceding it. Alas, the devil is in the details, all of which vary considerably for each of the sub-fields that have adopted the crisis of the seventeenth century as an explanandum for the emergence of modernity in its various registers. These problems are especially acute for the field of historical demography.

On first glance, it might seem that of all the sub-fields represented in this special issue historical demography should have an almost automatic affinity for a crisis-centered explanatory mechanism. After all, this discipline has long been acquainted with subsistence crises and mortality crises more generally, both ancient and modern. The classic features of the crise de type ancien are well known from the pioneering work of Simiand and Labrousse and that of their many followers among multiple generations of annaliste historians and historical demographers. They follow from the “natural” limits to an agricultural system characterized by a fixed supply of land and a static agricultural technology, which provided diminishing returns to capital and labor. Any sizable expansion of the population had to be accompanied by commensurate deteriorations in the standard of living. As the classic price scissors (with its dual blades of stagnant nominal wages and rising grain prices) began to close, mortality could not do otherwise than to escalate.5

Population crises of the modern variety are more complicated. In an ironic twist not lost on the demographers who study them, modern population crises are increasingly understood as coming in one of two contradictory flavors: On the one hand are the spectacular manifestations of human disaster that follow from resource-entitlement failures of a kind most fully described in Sen’s work, and on the other are the problems associated with aging populations that result from decades of below-replacement

5 François Simiand, Recherches anciennes et nouvelles sur le mouvement général des prix du VVe au XIXe siècle (Paris, 1932); Ernest Labrousse, La Crise de l’économie française à la fin de l’ancien régime et au début de la Révolution (Paris, 1943).
fertility behavior. The first kind of crisis manifests itself exclusively in the poverty-stricken global South, whereas the latter type occupies headlines and policy prescriptives across the global North. Finally, it is worth remembering that historical demography is also the home turf for scholarship about the most dramatic crisis of them all, the great pandemic of 1348 to 1351, the Black Death, which, despite the European appropriation implied by the standard dating, more properly belongs to the history of all of Eurasia.6

With an intellectual pedigree such as the one just described, how could the field of historical demography not warm easily and widely to a concept so well suited to its own pre-occupations as the crisis of the seventeenth century? Indeed, it largely has. The broad facts of the case are well known. After a long period of population collapse and failure to recover, precipitated by successive harvest failures and genuine famine, followed soon thereafter by the Black Death, the population of Europe broadly (and indeed of Eurasia even more broadly) began to grow again in the early sixteenth century. This growth proved to be both sustained and substantial enough (average rates of natural increase on the order of 1 percent per annum) to make good most of the losses incurred during the late Middle Ages. However, the expansion came to an abrupt halt after the first two decades of the seventeenth century. There was a great deal of regional variation in the actual severity of the seventeenth-century population decline; some locations were even able to hold steady. Only the Dutch Republic, however, managed to grow, enjoying, in fact, its Golden Age. Much of Holland’s success could be attributed to a massive flow of immigration from precisely those neighboring localities already suffering from the attendant population losses of various types of mortality crises.

In any event, the gradual cessation of plague visitations (the last European gasp occurring in 1720 Marseilles) during the latter decades of the seventeenth century heralded an end to the devastations of mid-century. Once again, by the middle of the eighteenth century, most of Europe was on its way to recouping the losses of the previous century. But none of these developments would have been inconsistent with the broad outlines of population move-

ments over a long pre-industrial past. The unprecedented population growth of the late eighteenth, and especially the nineteenth, century still lay in an unpredictable (nay, unimaginable) future.

Is this scenario enough to constitute a crisis of a fundamental nature—that is, a set of circumstances capable of creating a whole new population dynamic and not simply the cyclical fluctuation of population numbers routinely evidenced over long periods of human history? Or, perhaps more to the point, was the widespread population growth of the sixteenth century responsible in some direct way for the economic, social, political, military, and biological perturbations of the seventeenth century? Should we think of the other elements of the general crisis of the seventeenth century as materially influenced by the population pressure that had accumulated during the long sixteenth-century expansionary run?

As this review of the literature will reveal, it is clearly not the case that sixteenth-century population pressure produced a straightforward kind of Malthusian crisis (or climacteric). To the extent that the Malthusian mechanism was at work, it was through channels other than a direct link from living standards to either mortality or fertility. Furthermore, a complete justification for the use of the term crisis implies that a lasting change of regime must have ensued, not simply a cyclical return to experience as before. Only in hindsight does the eighteenth-century recovery appear distinctive from that of the sixteenth century. Certainly no contemporary could have predicted the shape of what we now call the “Demographic Transition” on the basis of lived experience, even after the take-off had begun in the last quarter of the century.

If anything, the eighteenth-century recovery was likely to have been less urban-intensive than the sixteenth-century expansion had been; an increasing share of urban workers engaged in non-farm labor would have seemed of greater importance at the time than the mere accumulation of people. Not until the nineteenth century do we find evidence of a change in population growth that is sui generis rather than just a difference in degree. Nothing about the eighteenth-century expansion would have indicated in advance that population would be able to keep on rising without eventually triggering what had been until that time the inevitable return of limiting mortality episodes.

The critical problem for historical demographers who want to adopt the crisis of the seventeenth century as a central organizing
principle for their analysis is how to fit a system most often described by self-equilibrating, homeostatic mechanisms into a concept that by definition should include, first, acute disruption and then some kind of entirely new experience. Recall that Hobsbawm’s original formulation of the crisis was as a fundamentally economic phenomenon, precipitated by outmoded production strategies favoring the manufacture and exchange of luxury goods for which the market was ultimately too limited to facilitate new modes of capitalist production. A massive trade slump and a concomitant realignment of productive capacity, coupled with a rapid expansion of slave economies in the New World, facilitated the emergence, on the other side of the crisis, of newly dominant bourgeois (and capitalist) players, notably the Dutch and the English. Their rise came directly at the expense of the old landed nobility.

One key marker of the complete success of this transfer of power between social groups and their national embodiments lay precisely in the ability of the Dutch Republic, and to a lesser extent England, to stave off the population losses suffered elsewhere during the middle decades of the seventeenth century. Yet any causal role for demographic change in Hobsbawm’s original model was secondary at best. Hence, despite the seeming logic of an easy fit between the pre-industrial demographic experience (marked as it was by highly variable fluctuations in mortality, and, to a lesser extent, fertility) and a crisis model, this effort has not in fact been without its skeptics.

Nevertheless, many scholars who were attracted by the explanatory possibilities of “crisis” for the seventeenth century began to conceive of it as a fundamentally demographic phenomenon in its own right. Not only was the retrenchment of population seen to be a key component of the crisis, but demographic losses themselves were construed as causal in the many disruptions to other parts of the social system. That the seventeenth century became in the scholarship of the 1960s and 1970s the locus of the last great Malthusian crisis of the traditional sort is ironic, since, as many have already noted, this dating places the end of the Malthusian system a full century before Malthus had even had a chance to articulate his famous proposition about the relationship between population and the resource capacity of the land. But the seventeenth century bears the distinction of witnessing—at least in
Western Europe—the last old-style contraction, a crise de type ancien, as described above. In this reading, the most important features of the seventeenth-century crisis were the sequence of harvest failures until the 1660s, the virulent resurgence of plague and other epidemic diseases (beginning to disappear for good in Western Europe by the 1660s), and the outbreak of continent-wide violent struggle, most notably in the last, deadly gasp of the Thirty Years’ War.7

This last feature of the old-style mortality crisis—the sword-wielding, red horseman of war—may be the hardest to fit squarely into a conventional Malthusian narrative of population collapse in the wake of resource depletion. Indeed, Gutmann, in his extremely thoughtful examination of the effects of war on the rural population of the southern Low Countries from the sixteenth to eighteenth centuries, ultimately treats the demographic impact of military activity as secondary to what he sees as an “independent economic determinant.” His extensive documentation of the highly variable recovery experiences in response to similar military losses is supportive of this conclusion. Indeed, even in Central Europe, where the worst ravages of the Thirty Years’ War occurred, war-related fatalities differed significantly across regions, as did the speed of recovery.8

Nonetheless, the impact of decades of violent conflict was far from trivial. Although these numbers remain contested, war mortality rates seem to have been, on average, about 30 percent for urban areas and 40 percent for rural ones throughout the relevant period. Moreover, as with other manifestations of seventeenth-century demographic collapse—such as climate-driven harvest shortfalls and episodes of epidemic disease visitation—the depletion in population caused by the Thirty Years’ War is now regarded as a significant contributor to the overall crisis of these years. Ogilvie, in a review essay on Germany and the seventeenth-century crisis, argued that the war “forced all European states to place intolerable pressures on their subjects. The German crisis, in

7 Perhaps the most famous and influential statement of the crisis as Malthusian in the traditional sense can be found in Emmanuel le Roy Ladurie (trans. John Day), The Peasants of Languedoc (Champaign, 1977; orig. pub. 1966, in French). But this was also the master narrative of Carlo Cipolla’s widely referenced Economic History of World Population (Harmondsworth, 1962).
short, exported disorder to the whole of Europe.” By this kind of reasoning, the various mortality episodes become not just the inevitable consequence of economic contraction and political upheaval; they become the arguably semi-independent variables driving other aspects of the system.9

The fullest expression of this line of reasoning can be found in Goldstone’s monumental Revolution and Rebellion in the Early Modern World. Although his Malthusian commitments are hardly orthodox (his model does not adopt the basic logic of the classical economists, which posits land scarcity as the inevitable break on growth), demographic change sits at the heart of his analysis, providing the first movement that other phenomena follow. Goldstone identifies his approach to population dynamics as “post-Malthusian and nonlinear.”10

Two important features distinguish Goldstone’s theory from that of the strict Malthusians. First, Goldstone articulates a theory of independent mortality movements that are not only exogenous in their origin; they also swamp in importance any movements in fertility. Mortality crises were dominated by largely independent patterns of epidemic disease or triggered by an exogenous deterioration in the climate suitable for arable agriculture. Goldstone argues that “the rule for early modern populations was simple: when mortality was low, the population grew; when mortality was high, the population declined or stagnated. Fertility control merely affected the rate of growth or decline.” Second, he argues that even small changes in population could have large social effects because what mattered most to the dynamics of a system was not the absolute size of any growth or decline, but the relative change in the size of those groups already in a marginal position, however that position might be defined for any given episode.11

9 The study of German demography during the period of the Thirty Years’ War remains clouded by the Nazi associations of Gunther Franz, its most famous early practitioner. Nonetheless, recent work reviewing both his sources and his methodology suggests that his statistical conclusions may not be altogether wrong, although they cannot yet be broken down enough by region. See John Theibault, “Demography of the Thirty Years War Re-revisited: Günter Franz and his Critics,” German History, XV (1997), 1–21. Sheilagh Ogilvie, “Germany and the Seventeenth-Century Crisis,” Historical Journal, XXXV (1992), 417–441.
But for Goldstone, it is not enough merely to reject the homeostatic, fully equilibrating mechanisms of Malthus’ original formulation. He also proposes that once population dynamics are set in motion, they become the agents of change for the other features of complex social systems. His analysis strives to find “the distributional effects as societies adjusted, whether badly or well, to changes in the relative balance of food and people. These changes—in prices and in the welfare of different sectors of society—are the politically important effects of population change.”

Armed with this goal as well as with a theory of population dynamics driven by exogenous, and highly influential, mortality episodes, Goldstone discovers a truly general crisis of the (long) seventeenth century, although he never actually identifies his framework as such. His model can explain the political rumblings of Western European history, the crisis of the Ottoman State, and the failure of the Ming, as well as the subsequent Qing, Empire in China. His theory takes him literally from one end of the vast Eurasian continent to the other, highlighting the common experience of all states in the face of demographic pressures that they could not yet control. In the seventeenth century specifically, those pressures were compounded by a renewed virulence of disease across Eurasia and by a global fall in average annual temperatures concomitant with a sharp rise in the incidence of extreme weather events.

The Malthusian paradigm has been resurrected more recently, and almost pristinely, in Clark’s 2008 manifesto to English exceptionalism, *A Farewell to Alms*. For Clark, the classical (Malthusian and Ricardian) binding constraints on land and natural resources ruled supreme throughout one long, and amazingly undifferentiated (from the point of view of “material living standards”), historical epoch stretching from the dawn of mankind to 1800. In his rigid adherence to the classical absolutes of diminishing returns, Clark maintains that population increases must always and inevitably precipitate decreases in material living standards, in turn inhibiting birth rates and stimulating death rates, thereby correcting the population increase that started the cycle.  

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12 Ibid., 32.
Clark’s model of historical living standards could be accused of the same binarism that Jones has famously ascribed to Hartwell’s theory of economic growth: “zero and one; nothing of note and then everything.” Although there is much to criticize about Clark’s project—his reading of the long pre-1800 historical record, his conception of human well-being, and his rendering of the (genetic?) escape mechanism that precipitated the post-1800 English leap into the world of modern economic growth—the real issue at hand is simply to note that his model leaves no room for the kind of claims made by Hobsbawm and his followers for the importance of the seventeenth century, whether or not “crisis” is the proper term for it. In Clark’s hands, the premodern Malthusian cycles of population growth and inevitable retrenchment are at best minor players on the world stage, or, more accurately, because they are the only players on the world stage, they merit no greater importance at any one point in time. Thus, to the extent that the seventeenth-century crisis was useful in helping historians to explain the transition to modernity (be it economic, social, cultural, political, or even demographic), it has no relevance for “big history” as Clark views it. 14

Demographic events, most especially mortality spikes, can never really serve as independent variables if one adopts a strict Malthusian worldview. The homeostatic equilibrating mechanism built into the iron logic of the “law of population” rests on a circular chain of reactions that link fertility, mortality, and living standards. Hence, the near impossibility of sorting out the direction of causal relationships, no matter how sophisticated the statistical techniques brought to bear on actual historical data. The temporal ebb and flow of this system is not readily captured by a comparative statics exercise, not least because the time scale needed for the different links to recalibrate themselves is not itself consistent.

This problem, though pointed out and acknowledged on numerous occasions, is also routinely ignored. The strongest notes of concern have been raised by Weir and Grantham, working primarily on French historical data, and by Lee, Anderson, and, most recently, Hatcher and Nicolini, all of whom largely concentrated

on English sources across the medieval and early modern periods. As Lee and Anderson note, the problem lies fundamentally in the “endogeneity of all observed variables in the Malthusian system (fertility, mortality, population size and real wages),” leading to what Weir describes as the “peculiarly a-historical character of any equilibrium analysis.”

Nevertheless, the broad sweep of the European demographic experience before the nineteenth century fits the Malthusian model readily enough, especially when response times are calculated in centuries, rather than in decades, let alone individual lifetimes—a critical point recently re-emphasized by Grantham (in his critique of Clark’s *Farewell to Alms*, no less). The population expansion of the High Middle Ages was followed by the devastation of the fourteenth century, which is still (despite the heavy weight of evidence that the Black Death was an exogenous shock) often explained as the inevitable outcome of the carrying capacity of the environment having been exceeded. This narrative takes as its most cogent metaphor the image of too many bacteria multiplying in the proverbial Petri dish. When reproduction outstripped food supply, the population was doomed to collapse. The next long European growth swing began in the sixteenth century, a response—as the story goes, despite the long delay—to high real wages and a standard of living characteristic of the so-called “golden age of labor.”

In this sequence, the seventeenth century fits easily as the next moment of necessary contraction. Harvest failure, plague, and war all contributed their part, even if in varying doses across the European landscape. On the other side of the crisis, the eighteenth-century population expansion serves as the final bridge between the increasingly obsolete Malthusian past and a new era inaugurated by a releasing of the old technological constraints on the


returns to labor, capital, and/or land. Thus, population growth in the new, post-Malthusian, era could be not only positive as in past phases of expansion but also accelerating, at least until slowed by other forces new to the mechanisms of regulation, all on the fertility side of the equation. These forces constitute the explanans of the “demographic transition” of the nineteenth century, a subject that must await another essay.

In the seventeenth century, most of Europe, except for the Dutch Republic and England, suffered (sometimes considerable) population losses, particularly in the middle decades of the century. Although rates of recovery varied widely (some regions responding to short-term mortality spikes with rapid gains in fertility and in-migration and others losing entire villages forever), the overall picture was bleak wherever harvest failure, visitations of plague, and/or the depredations of war struck simultaneously. Moreover, when the increasingly well-documented climate change of the period is added to this scenario (the severe winters and unstable summers associated with the low sunspot activity of the Maunder Minimum), the case for a seventeenth-century subsistence crisis of the ancient type appears to be sealed. The exogenous deterioration of the environment could only have exacerbated the endogenous mechanisms for recalibrating the population, leading inexorably, in Malthusian terms, to the swift and terrible wrath of the so-called positive check—that is to say, a significant increase in mortality.  

This story would have been all well and good had the evidence emerging gradually from the several large, multi-authored demographic projects of the 1980s been able to confirm, with sufficient conviction, the master narrative of mortality spikes following periods of dearth—whether demarcated by a subsistence crisis of the classic variety in the agrarian economy or by a fall in real wages, either farm or proto-industrial (the increasingly better and more numerous data also failed to confirm the essential link between real wages and fertility behavior). The groundwork for the resulting shift in stress away from the importance of mortality for regulating the homeostatic system had already been laid in a number of studies that tried (and failed) to substantiate the

17 See Gutmann, *War and Rural Life*, 146–150, for an especially thoughtful discussion of the relative contributions to the mortality crises in the southern Low Countries during the seventeenth and eighteenth centuries.
hypothesized link between food prices and mortality—a link that supposedly worked directly via famine or, more obliquely, through famine-induced disease vectors. There can be no doubt that people suffered when the harvest was short, but it became increasingly clear that they did not actually starve to death nearly as often as scholars once assumed. No amount of rigorous statistical testing has been able to discover any consistently strong relationship between harvest failures and mortality crises using data from Western Europe.\textsuperscript{18}

Even more damning for a traditional Malthusian reading was the appearance in 1987 of Livi-Bacci’s \textit{Population and Nutrition}. Livi-Bacci effectively severed the remaining strong arm of the positive check, the link between nutrition and epidemic disease. He found almost no medical or historical statistical evidence connecting the major disease sources of mortality crises with the nutritional state of individuals exposed to those diseases. The more recent work of scholars like Fogel, Steckel, and Komlos offers another way to theorize the link between access to food and mortality experience—the study of human height as a window into human nutrition. But the mechanism is no longer focused on famine and its corollary, crisis mortality, but on high “normal” mortality as influenced by the long-term nutritional status of populations. As such, it is a much more subtle mechanism than the old-style subsistence crisis had been. Chronic mal-nourishment, as marked by stunting and poor teeth, leads to chronic high mortality. Although both condition and outcome are subject to long swings across time, neither is correlated closely with food prices or real wages in the short run.\textsuperscript{19}

\textsuperscript{18} The most important attempts to link mortality and food prices were those by Andrew Appleby whose untimely death cut his work regrettably short. See, for example, Appleby, \textit{Famine in Tudor and Stuart England} (Stanford, 1977); E. Anthony Wrigley and Roger Schofield, \textit{The Population History of England, 1541–1871} (New York, 1989), 402–453 (Chapter 10).

But to backtrack a little, long before Fogel and others set about the task of extracting statistical representations of human health in the past from height records, other scholars had turned their attention away from the mortality mechanism altogether, favoring instead the other leg of the Malthusian dyad, the so-called preventive (or more morally charged, prudential) check. Incidentally, Malthus did not believe that this mechanism, which worked by limiting fertility, was operative on nearly enough occasions, owing to the lusts and desires of the common man. Nevertheless, he surmised that when real wages fell and living standards were poor, fewer children would be born than would have been the case otherwise. Moreover, because this mechanism, if successfully applied, obviated the need for the positive check of an increase in mortality, societies that relied on fertility control came to be characterized as “low-pressure” regimes, as opposed to their vile cousins the “high-pressure” regimes, which featured young and universal marriage for women, high fertility, and consequent high mortality. On the basis of only limited evidence, most of it hearsay, Malthus had identified China as the quintessential example of a high-pressure regime, the standard of human misery to which all European societies, however deficient themselves, could be compared favorably.20

Indeed, Wrigley and Schofield successfully adopted the low-pressure mechanism as the framework for their massive compilation of English demographic experience throughout the early modern era. Their Population History of England, 1541–1871, based on the family reconstitution of 404 English parishes published in 1981, famously emphasized the power of fertility response over and against mortality, thereby making England the early harbinger of the demographic transition yet to come. Although their initial research findings expressed some caution about their capacity to identify the relative strength of the two mechanisms fully (they actually never succeeded in finding a direct statistical link between real wages and fertility nor any direct evidence of the vital connec-

20 It is worth noting further that simply the fact of lowering fertility would itself contribute to lower mortality given the continuing disproportionate importance of infant mortality in driving overall calculations of life expectancy. For an extended discussion of fertility in China with regard to the received Malthusian view, see Arthur P. Wolf and Theo Engelen, “Fertility and Fertility Control in Pre-Revolutionary China,” Journal of Interdisciplinary History, XXXVIII (2008), 345–376.
tion between real-wage trends and change in age at first marriage or the related phenomenon, the proportion of those who re-
mained permanently celibate), the Cambridge Group project has
increasingly come to be identified almost exclusively with their
strong commitment to the total efficacy of the preventive check,
at least for a happily exceptional England. This position has solidi-
fied so strongly into orthodoxy that recent attempts to explain the
transition from the high-pressure regime of the late Middle Ages
(the age of plague run rampant) to their low-pressure regime of
early modern England speculate (with no direct evidence of fertili-
ity behavior as support) that even the earlier period must have
been characterized by fertility limitation.21

The importance of this effort to rewrite the traditional narra-
tive of the late medieval trough can be better understood when we
consider the problem that this period creates for the strength of the
broader Malthusian case. As Hatcher so aptly notes, “We all know
[that] the fifteenth century was a time when low and falling popu-
lation coexisted with high and rising living standards.” This, of
course, is not to be expected in a Malthusian world, at least not for
very long. Surely, more than a century is too long to constitute a
plausible exception.22

Whatever reservations scholars might have about the ade-
quacy of the Cambridge Group’s sample—the statistical analysis of
the data, the accuracy of the starting assumptions, or the logic of
the model—in the final analysis, the Cambridge Group clearly
moved the English experience increasingly out of the orbit of the
general-crisis literature. Although these scholars did not abandon
the master Malthusian narrative, they softened it considerably by
placing their emphasis on the response mechanism of marriage
limitation, in the process making England so exceptional as to be
no longer a plausible example of a European-wide phenomenon
characterized by crisis. Gone were the temporally sharp fluctua-

21 Wrigley and Schofield, Population History, 421. For an excellent review and trenchant
critique of this literature see Mark Bailey, “Demographic Decline in Late Medieval England:
22 Hatcher, “Understanding the Population History,” 95. It is worth noting that the prob-
lem of circularity is at the core of this critique. If population were being held in check by
some force acting from outside the closed Malthusian system, it would be possible for low
population to be accompanied by high and rising living standards, without the latter being
immediately translated back into a rising population.
tions of the harvest year by year, or even the relatively longer-term episodes of distress associated with epidemic diseases or rampaging armies. In their place were long swings in the relative abundance or scarcity of household niches and hence in the ease or restriction of household formation. These trends were dictated by long swings in population resulting from the gentle changes in marriage rates and female ages at first marriage. As population grew, household formation grew more restricted, allowing population growth to retard again commensurately. But this view no longer carried the feel of the old-style demographic crisis. After all, a life of permanent celibacy is a far cry from a life wracked by spikes in the death toll, and it is clearly preferable to premature mortality.

The English experience identified in the *Population History of England* and its later companion volume, *English Population History from Family Reconstitution* (New York, 1997), is not the only project that seems to make notions of a general crisis of the seventeenth century obsolete, at least for the purposes of exploring historical demography. Another considerable body of work explores the so-called European Marriage Pattern, calling into question a periodization schema by dint of fundamental break in the early modern period.

Witness the critical early work of Hajnal during the 1960s on Western European exceptionalism in marriage patterns, as compared to all other agricultural societies that have been studied. What Hajnal found, and others have largely confirmed, is that (northwestern) European patterns of household formation were as remarkable for their stability over a long period of time as for their exceptionalism *vis à vis* other cultures. Indeed, the absolutely dominant household-formation strategy adopted by agrarian communities in every other place and time has included nearly universal marriage for women, and at ages substantially younger than for their bridegrooms; the new couples typically moved into the already established households of the bride’s father-in-law. In contrast to the foregoing, but consistent with the framework adopted by Wrigley and Schofield and the Cambridge Group, Hajnal identified northwestern Europe as uniquely characterized by relatively late ages at first marriage for both women and men, as well as by relatively high rates of permanent celibacy ranging between approximately 10 percent and 30 percent over time and place.
These figures differ significantly from the nearly universal experience of marriage for young women in all other agricultural societies.\textsuperscript{23}

Hartman’s recent book, \textit{The Household and the Making of Europe}, views this marriage pattern as the single most salient fact about European social history. Hartman argues that the relatively late age of first marriage for women, and the resulting closeness in age between marriage partners, led to a radically different dynamic between the sexes, with social and economic consequences that bear directly on the unique path taken by Europe to modernization. Furthermore, she postulates that this pattern was certainly in place by the high Middle Ages, perhaps finding its roots already in the period of population collapse in late antiquity. From that point forward, the general experience of late and nonuniversal marriage was more important than any of the relatively minor cyclical fluctuations in the actual average age at marriage for brides. In this schema, the Malthusian response of nuptiality to changes in the standard of living (earlier and more pervasive marriage in prosperous times and later and less pervasive marriage when real wages declined) is trumped by a household-formation strategy that limited the baseline nuptiality of European society relative to all others. This marriage pattern also made European households less stable than those of other agricultural societies, leading, according to Hartman, to the mass behaviors of “long-range planning, risk-taking, personal responsibility, and independence.”\textsuperscript{24}

Hartman’s thesis, like Wrigley and Schofield’s characterization of a centuries-long pattern of a low-pressure demographic regime for England, stresses continuity over change. It is particularly inhospitable to theories that explain the transition to modernity by looking to the various (acute) crises already outlined for the middle decades of the seventeenth century. Instead, explanations must rely on something much more subtle, such as the long and slow accumulation of the inadvertent benefits of a household-formation strategy that yielded a higher number of equal marital partnerships and lower mortality burdens to bring England, and Western Europe more generally, into the modern age.


\textsuperscript{24} Mary Hartman, \textit{The Household and the Making of History} (New York, 2004), 270.
It is ironic that the recent historiography of the demographic contribution to “the great divergence” has polarized into two diametrically opposed positions, both of which take as their guiding principle a belief in the remarkable longevity of certain social relationships. In the case of Clark, all of human history before 1800 succumbed to the stable, even if cyclical, constraints of a Malthusian population mechanism. In Hartman’s view of Western Europe in general, and the Cambridge Group’s view of England in particular, the long period from the Middle Ages to the present is characterized by a household-formation strategy that is precociously “modern” in its basic features, and fortuitously benign in its effects. Both of these schemes involve the claim that the result of this modern and benign behavior was nothing short of the economic transformation of the West. As Hartman puts it succinctly toward the close of her book, “Late-marriage households were critical sites for change, including economic change that radiated into the wider society.”

Nonetheless, as Hartman herself acknowledges, this argument does not answer questions about the comparative rate of development within Europe. Hence, despite her frustration with the standard question of why “industrial transformation first occurred in England,” her analysis cannot easily account for why inheritance systems privileged family patrimonies longer in France than in England—a question to which she does not ascribe great importance. It suggests, however, that even within the broad framework of a persistently unique and consequential household-formation strategy, such as that in Western Europe, a more nuanced narrative of events is needed to determine the causal trajectory of Europe’s transition to modernity. It seems likely that the seventeenth-century crisis may yet have a role to play in this analysis.

The many strands of work in historical demography that have emerged during the past half-century since Hobsbawm first articulated his thesis have left no single, definitive narrative of European population behavior across the early modern period. Surely, there were subsistence crises of the ancient variety, triggered by population pressure on food supplies, but there were also a great many

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25 See the contribution by Jan de Vries in this special issue for a fuller explication of the economic phenomenon known as “the great divergence.” Hartmann, Household, 233.
26 Hartman, Household, 234.
mortality episodes driven by forces exogenous to population size. Moreover, the capacity to rebound from these episodes of population decline varied substantially across time and place, as did the capacity for expansion during periods when living standards were high. Finally, the important contribution of marriage behavior to the demographic equation seems to have been remarkably different for Europe than for all other agricultural societies; it fluctuated over a relatively small range in comparison to the gap between Europe and all other areas. If marriage patterns were crucial, as Hartman proposes, and broadly similar across Western Europe for many centuries, what role could nuptiality have played in generating the demographic variation suggested by the foregoing? In short, what does it mean to posit a demographic crisis as one of the core elements in a generalized crisis of the seventeenth century if we have trouble even finding a moment of critical change among the demographic indicators themselves?

Be that as it may, historical demography continues to rely on the crisis concept for its broad narrative about fundamental changes in life expectancy and household formation, even if its narrow particulars do not explain any given set of demographic data particularly well. But the crisis concept must be made as sensible and as rigorous as possible if demographers are going to use it (as I intend to do). We need to explain the relatively low long-term growth rate of populations prior to the seventeenth century and the relatively much faster rate of population growth from 1750 to the present—two fundamentally different population experiences, even if the crisis between them was not especially consistent in any of its demographic details. De Vries argues in his contribution herein that the seventeenth century “set in motion a chain of events that silently reconfigured European economic life.” Perhaps we should include in this hard-to-hear reconfiguration the life chances of Europeans as well.