The Economic Crisis of the Seventeenth Century after Fifty Years

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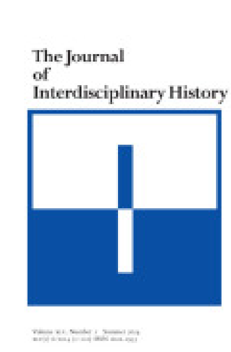

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The Economic Crisis of the Seventeenth Century after Fifty Years

In 1978, Parker and Smith opened their edited volume of essays, *The General Crisis of the Seventeenth Century,* with the prefatory comment, "The 'General Crisis theory' has been with us now for over twenty years and shows no sign of dying." In fact, the debate fell silent very shortly after Parker and Smith wrote these lines, and although no death notice was posted, Steensgaard, a leading participant in the early debate, felt compelled in 1990 to write of the seventeenth-century crisis concept in the past tense: "The . . . concept *served* the research in European history well. . . . The concept *served* its purpose well, because the discussion of its content, or for that matter its very existence, revealed a number of general features in seventeenth-century European history, which used to be studied in national isolation." Thus, the efforts to develop the concept had not been altogether in vain—they had served the worthy cause of advancing comparative history—but they had not led to broad agreement about the definition, scope, or even existence of a crisis.[1]

Even this modest effort to salvage the crisis concept as a noble but ultimately failed enterprise cannot withstand the penetrating postmodernist gaze of the contemporary historian, who is equipped by "critical science studies" to recognize the crisis concept as the wretched spawn of "Enlightenment social scientific history." Given this illegitimate pedigree, it is "hard to argue for sal-

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1 Geoffrey Parker and Leslie M. Smith (eds.), *The General Crisis of the Seventeenth Century* (London, 1978), ix; H. G. Koenigsberger, "The Crisis of the 17th Century: A Farewell?" in *Politicians and Virtuosi: Essays in Early Modern History* (London, 1986), 149–168; Niels Steensgaard, "The Seventeenth-Century Crisis and the Unity of Eurasian History," *Modern Asian Studies,* XXIV (1990), 683 (emphasis added). Steensgaard's assessment of the enduring contribution of the "crisis debate" echoes that of Christopher Hill in his introduction to the first effort to bring the original strands of debate together—"Introduction," in Trevor Aston (ed.), *Crisis in Europe 1560–1660* (London, 1965), 3.

vaging [the general crisis debates] from out of the historiographical dustbin."[2]

THE CRISIS THAT WILL NOT GO AWAY From bright new idea to historiographical dustbin in one generation. In a slow-moving discipline like history, this is a singular achievement. But did the crisis concept really die or did it simply migrate to a more hospitable place? As the debate about a "general crisis" in seventeenth-century Europe ebbed, a new debate emerged about a more encompassing general crisis affecting all of Eurasia and giving shape to both the global economy and the functioning of states stretching from England to Japan. This extended crisis debate (about which more later) has been no more conclusive than the original, but it continues to speak to historians concerned with global history and environmental history.

Even historians of Old Europe who dismiss the crisis concept continue to feel its influence, an influence exerted by its very absence. That is, even though historians cannot agree on what it is, there remains a place in the master narrative reserved for it. This point was hinted at early in the crisis debate by Schöffer. He expressed skepticism about the formulations of *general crisis* then available (in 1963) but acknowledged as unsatisfactory the absence of any organizing concept beyond strictly national ones (such as Holland's "Golden Age") for the seventeenth century: "It sometimes seems as if the seventeenth century, wedged between the sixteenth and eighteenth centuries, has no features of its own. With Renaissance and Reformation on the one side, Enlightenment and Revolution on the other, for the century in between we are left with but vague terms like 'transition' and 'change'. . . . It may be traditionalism, against our better judgment, but we just simply have to give the seventeenth century a place of its own. Our imagination needs it."[3]

There is a vacant space in the seventeenth century that the crisis concept was meant to fill. Steensgaard echoed Schöffer's lament when he explained the lack of clarity or consensus about the concept: "The crisis is often merely an affirmation of the undis-

2 J. B. Shank, "Crisis: A Useful Category of Post-Social Scientific Historical Analysis?" *American Historical Review,* CXIII (2008), 1095–1096.

3 Ivo Schöffer, "Did Holland's Golden Age Coincide with a Period of Crisis?" in Parker and Smith (eds.), *General Crisis,* 83–84.

puted fact that something happened in the seventeenth century; the crisis has become a synonym for what historians concerned with other centuries call 'history.'"[4]

The problem with the crisis concept is, at bottom, a problem of periodization. The notion of a general crisis belongs to early modern European history, and "early modern" is a relative newcomer to historical periodization. Before it was customary to speak of the early modern period, Europeanists organized general European historical narratives around the concepts of Renaissance and Reformation, Enlightenment and Revolution. These concepts, to be sure, were anchored in national histories—those of Italy, Germany, and France. But, over time, they were stretched and shaped—especially in the United States—to be suitable for the organization of historical change on a European scale. They established a master narrative.[5]

The more capacious, but also more amorphous, periodization schema of "early modern" proved useful to social-scientific historians, for whom it was a close substitute for "pre-industrial" or "traditional" society. It also suited the needs of the Annales School, which emphasized the durable structures—indeed, the "motionless history"—of European society from the late Middle Ages until the eve of the French Revolution, in which "a peasant population, during the course of twelve or thirteen generations, was busy reproducing itself within the limits of certain finite possibilities whose constraints proved inexorable." From this perspective, the Renaissance and Reformation were comparable to the introduction of the dinner fork, "not really significant except from the point of view of a noisy minority."[6]

But this viewpoint, from which a concept such as the Renaissance is but "a *conjoncture* that is intelligible only in a far larger temporal context," did not sweep aside all that was before it. Its reach was limited, and beyond it, the foundations of early modern history were, and remain, its predecessors as organizing concepts: Renaissance and Reformation to the early seventeenth century,

4 Steensgaard, "The Seventeenth-century Crisis," in Parker and Smith (eds.), *General Crisis,* 27.

5 A sketch of the historiographical development is offered in Theodore K. Rabb, *The Struggle for Stability in Early Modern Europe* (New York, 1975), 7–16.

6 Emmanuel Le Roy Ladurie, "Motionless History," *Social Science History,* I (1977), 123, 134.

and Enlightenment and Revolution (or the Ancien Régime) from some point in the second half of the seventeenth century onward. That is, there are *two* early modern periods separated by a no man's land.

Two recent research developments in early modern European history speak to this point—the concepts of Confessionalization and the Early, or Radical, Enlightenment. Confessionalization pursues the consequences of the Protestant and Catholic Reformations as the Churches formed large religiously oriented communities in collaboration with the early modern state, promoting a new religious, social, sexual, and political discipline. In the hands of the historians who did most to establish its influence, it extended the history of the Reformation into a phase of social disciplining and state building reaching into the seventeenth century. To Schilling, a great attraction of the concept was to offer a new periodization—the "long sixteenth century," extending to c. 1650—to church history and the history of theology.[7]

The Early, or Radical, Enlightenment seeks to contextualize the contributions of High Enlightenment *philosophes* in the "unprecedented intellectual turmoil which commenced in the mid-seventeenth century . . . which heralded the onset of the Enlightenment proper in the closing years of the century." Israel, who has written most extensively on this concept, contrasts a civilization ending around 1650 "based on a largely shared core of faith, tradition, and authority" with "a general process of rationalization and secularization," which "overthrew theology's age-old hegemony after 1650." Meanwhile, Schilling wrote that "confessional Europe, properly speaking, came [to an end] around 1650. . . . Finally, the ideal of Christian unity, which had been shattered by the failure of interconfessional conversations during the 1560s, reappeared in the form of a new irenicism."[8]

7 Wolfgang Reinhard, "Gegenreformation als Modernisierung? Prolegomena zu einer Theorie des konfessionellen Zeitalters," *Archiv für Reformationsgeschichte,* LXVIII (1977), 226–252; Heinz Schilling, *Religion, Political Culture and the Emergence of Early Modern Society: Essays in German and Dutch History* (Leiden, 1992); *idem,* "Confessional Europe," in Thomas A. Brady, Jr., Heiko A. Oberman, and James D. Tracy (eds.), *Handbook of European History, 1400–1600* (Leiden, 1995), II, 641–681; *idem,* "Die Konfessisonalisierug von Kirche, Staat und Gesellschaft-Profil, Leistung, Defizite unde Perspektiven enes geschichtswissenschaftlichen Paradigmas," in Reinhard and *idem* (eds.), *Die katholische Konfessionalisierung* (Münster, 1995).

8 Jonathan I. Israel, *Radical Enlightenment: Philosophy and the Making of Modernity, 1650–1750* (New York, 2001), 3–4, 14. See also, Margaret C. Jacob, *Radical Enlightenment* (Lafayette, La., 1981); Paul Hazard, *The European Mind 1680–1715* (Harmondsworth, 1964; orig. pub. 1935).

The two concepts, Confessionalization and Early Enlightenment, extend their religious and philosophical concerns forward and backward, respectively, until they abut each other temporally. But the one simply ends, whether through exhaustion or completion, and the other simply emerges, perhaps out of the head of Zeus, with nothing but a "crisis of the mind" standing between them.

The established markers of periodization are well defined and broadly understood. Historians know what they stand for but have largely ceased to believe the explanatory claims made on their behalf. The French Revolution is over, and the Enlightenment, joined at the hip with the concept of modernity, looks suspect to a postmodern age. As for the Renaissance, thirty years ago Bouwsma invited the American historical profession, assembled at its annual meeting, to contemplate "a remarkable historiographical event . . . the collapse of the traditional dramatic organization of Western history." The cause of this collapse was the evisceration of the concept of the Renaissance, now merely a "venerable label" that "has become little more than an administrative convenience, a kind of blanket under which we huddle together."[9]

The established historiographical concepts around which Western history has long been organized are well known, but historians have lost their ability to believe the dramatic organization that they impart to the historical narrative. The problem with the concept of *general crisis* is just the opposite: Historians do not know—cannot agree about—what it is, but they believe implicitly that something happened. They leave space, a historical vacant lot awaiting development—according to the fading sign—at some future date when the intellectual climate might make it possible to integrate developments across a windswept mid-seventeenth century watershed.[10]

Israel invokes Hazard's "crisis of the European mind" in the late seventeenth century: "Indeed, some such notion . . . is essential . . . since there has to be some sort of label to describe the prelude before the Enlightenment. . . . when the cohesion and unity of the confessional outlook . . . frayed" (20). Schilling, "Confessional Europe," 641–670 (quotation, 669).

9 François Furet, *Penser la Révolution française* (Paris, 1978); William J. Bouwsma, "The Renaissance and the Drama of Western History," *American Historical Review,* LXXXIV (1980), 1, 3.

10 The watershed metaphor applied to the mid-seventeenth century goes back to George Norman Clark, *The Seventeenth Century* (Oxford, 1929), ix.

THE ECONOMIC CRISIS OF THE SEVENTEENTH CENTURY: PRICES, POPULATION, AND PRODUCTION Perhaps the concept of *general crisis* sought to achieve too much, too soon. In seeking to incorporate politics, institutions, culture, art, economy, and ecology into an integrated historical process applicable to Europe as a whole, crisis enthusiasts were surely courting trouble. Does there remain from this debate a salvageable core, a more modest crisis concept on which we can build? If so, that defendable perimeter surely contains within it the notion of a seventeenth-century economic crisis. Even Steensgaard, sifting the remains of the debate through his fingers in 1990, could point to a broad consensus in a long-term regression or stagnation of the European economy beginning in the early seventeenth century: "This . . . is the aspect of the crisis which more than any other has won universal recognition and become an established truth."[11]

But, what sort of economic setback afflicted Europe in this period, and is *crisis* its proper label? Probably the most broadly accepted characterization of seventeenth-century European economic life is that a long era of expansion gave way to its opposite, or at least to a prolonged stagnation. This *"renversement du trend seculaire"* had been established well before the emergence of the crisis debate; it was the fruit of a long-term, multi-nation study of the history of European prices that culminated in the 1930s, when an acute practical interest in price deflation imparted a striking contemporary relevance to a generation of monk-like archival research.[12]

The result of this vast program of data collection revealed a distinct pattern of long-term change shared in broad outline by all of Europe: From the high Middle Ages until the beginning of the nineteenth century, prices (mainly agricultural commodity prices) traced out two sweeping cycles, or logistics. Rising in the thirteenth century, prices broke at the time of the Black Death and fell

11 Steensgaard, "Crisis and the Unity of Eurasian History," 684.

12 The International Scientific Commission on Price History was founded in 1929; the various national studies were published just before and after World War II. For an overview, see Arthur Cole and Ruth Crandell, "The International Commission on Price History," *Journal of Economic History,* XXIV (1964), 381–388. Earl J. Hamilton, *American Treasure and the Price Revolution in Spain, 1501–1650* (Cambridge, Mass., 1934). In his preface, Hamilton felt the need to unburden himself: "Few readers are likely to form a correct impression of the quantity of labor required to produce a history of prices . . . entirely from manuscript materials. Mrs. Hamilton and I have spent more than six years . . . working jointly, about 30,750 hours" (xi–xii).

thereafter. They revived beginning in the late fifteenth century and trended sharply upward throughout the "long sixteenth century," the era of the price revolution. In the first half of the seventeenth century—the inflection point came earlier in the Mediterranean region than in Northern Europe—prices began to decline, and, with interruptions, trended downward to the mid-eighteenth century. Thereafter, they began to rise again, peaking in the Napoleonic era.

In each of these cycles, the components of the overall price indexes also showed systematic movements relative to each other: Arable agricultural prices (especially bread grains) rose most rapidly in the upswings and fell most precipitously in the downswings. The amplitude of livestock-related prices (meat and dairy products) was more muted, while the prices of industrial products varied even less. These patterns endowed European economic history with a periodization of its own. They liberated economic history from the conventional periodization and labels of political and cultural historians. There was no further need for economic historians to refer to Renaissance or Baroque economies; they spoke instead of *la longue durée,* of eras of growth and depression, and, more abstractly, of Phase A and Phase B.[13]

This new periodization, based on price movements, immediately raised questions of interpretation: What caused these price trends and what were their consequences? An economist could be tempted to treat changes in the general price level as a monetary phenomenon. Hamilton sought to explain Europe's sixteenth-century price revolution as a direct consequence of new silver supplies and a growing monetary base. With the encouragement of Keynes, who had a great interest in the stimulative effect of rising prices, the price revolution came to be seen as an era of "profit inflation." Keynes waxed lyrical: "Never in the annals of the modern world had there existed so prolonged and so rich an opportunity for the businessman, the speculator, and the profiteer. In these

13 Among the last economic historians to refer to Renaissance or Baroque economies is Harry Miskimin, *Economy of Early Renaissance Europe* (Englewood Cliffs, 1969); *idem, Economy of Later Renaissance Europe* (New York, 1977). See also de Vries, "Renaissance Cities," *Renaissance Quarterly,* XLII (1989), 781–793. Immanuel Wallerstein, *The Modern World-System. II. Mercantilism and the Consolidation of the European World-Economy, 1600–1750* (New York, 1980), 12–34; Fernand Braudel and Frank Spooner, "Prices in Europe from 1450 to 1750," in E. E. Rich and C. H. Wilson (eds.), *Cambridge Economic History of Europe. IV. The Economy of Expanding Europe in the 16th and 17th Centuries* (New York, 1967), 374–486.

golden years modern capitalism was born." When the silver flow diminished and the monetary base contracted, prices fell; profits—easy profits—evaporated. If capitalism had been born in this long sixteenth-century expansion, it plunged, immediately afterward, into an era of crisis.[14]

But this was not the only interpretation. In the study of the business cycles in the economies of industrial societies, Schumpeter placed special attention on the fifty-year Kondratieff cycles, which, much like the longer, more leisurely pre-industrial patterns, are also defined by price movements. Schumpeter saw the contractionary, deflationary phases as the very hearth of innovation. In the desperate conditions of deflation and contraction, innovative entrepreneurs pressed their less efficient competitors to the wall. Through a process of "creative destruction," involving new technologies and improved business methods, the fit survivors of a period of economic distress laid the foundations for a new cycle of growth. Simiand applied a broadly similar idea—at the same time, the nadir of the Great Depression—to the long price swings of the pre-industrial economy. Phase B, such as began around the mid-seventeenth century, initiated a process of heightened competition, leading to concentration and greater efficiency. In this admittedly drawn-out and diffuse process was to be found the generative innovations and reorganizations that would propel the next expansive phase of economic life.[15]

Price history focused attention on the early to mid-seventeenth century as an era of reversals. But was the new era one of prolonged depression and stagnation or of bracing structural change preparing the ground for a new era of prosperity? The earlier Phase B, ushered in by the Black Death, gave rise to a similar historical debate: Were the plague survivors and their successors the fortunate beneficiaries of a "golden age of the wage laborer," or were they doomed to endure persistent economic stagnation and underemployment?[16]

14 Earl J. Hamilton, "American Treasure and the Rise of Capitalism," *Economica,* XXVII (1929), 338–357; John Maynard Keynes, *A Treatise on Money* (London, 1930), II, 159.

15 Schumpeter developed his vision of an entrepreneur-focused, cyclical, dynamic capitalism in a trilogy of works: Joseph Schumpeter, *The Theory of Economic Development* (Cambridge, Mass., 1934; orig. pub. 1926); *Business Cycles* (New York, 1939); *Capitalism, Socialism, and Democracy* (New York, 1942). François Simiand, *Recherches anciennes et nouvelles sur le mouvement general des prix du XVIe au XIX siècle* (Paris, 1932).

16 On the fourteenth- to fifteenth-century economic depression debate, see Robert S.

Most economic historians have not been content to focus only on price trends and money supply. They want to penetrate beyond the "veil of money" to the real economy of production and consumption, of trade and accumulation. A logical first step in doing so is to place the price evidence in a framework of supply and demand—that is, in an overwhelmingly agrarian society, agricultural production and food consumption. Wilhelm Abel, B. H. Slicher van Bath, and a succession of Annales School historians interpreted the reversal of price trends as evidence of a Malthusian positive check: Population had the power to grow exponentially, or, as Le Roy Ladurie said of the sixteenth-century peasants of Languedoc, to "multiply like mice in a grange." The means of subsistence could grow only arithmetically, and the evidence for this Malthusian postulate was rising prices as the growth of demand outstripped the growth of supply. When, finally, the subsistence crisis bit and the population collapsed, prices fell. The seventeenth-century reversal of long-term price increases signaled a crisis of production.[17]

The population of Europe *did* decline. Beginning in the second half of the fifteenth century in most areas, population began to recover from the sharp, sudden setback caused by the Black Death. It regained and then exceeded its pre-plague levels until, in the course of the first two-thirds of the seventeenth century, in one region after another, the population leveled off, edged downward, or in some cases fell sharply. Whereas the broad impact of bubonic plague imparted a certain uniformity to the fourteenth-century decline, the seventeenth-century demographic reversal was highly varied. In the Mediterranean region, famines in the 1590s and plague in 1599, from 1629 to 1631, and from 1647 to 1650 joined other factors in reducing the population of Italy between 1600 and 1650 by about 16 percent, and that of Spain by 14 percent (concentrated in Castile). In Central Europe, the Thirty Years' War created a disorder that intensified every manner of hazard to life. Recent estimates show the lands of the Holy Ro-

Lopez and Miskimin, "The Economic Depression of the Renaissance," *Economic History Review,* XIV (1962), 408–426; Carlo M. Cipolla, "Economic Depression of the Renaissance?" *ibid.,* XVI (1964), 519–524; Miskimin, "Monetary Movements and Market Structure—Forces for Contraction in Fourteenth- and Fifteenth-Century England," *Journal of Economic History,* XXIV (1964), 470–490.

17 Le Roy Ladurie, *The Peasants of Languedoc* (Urbana, 1974; orig. pub. 1966), 53.

man Empire suffering a population decline of 35 to 40 percent. Elsewhere, population growth slowed or stopped but did not decline absolutely; the population of Europe as a whole declined by approximately 5 percent in this period. In England, the maritime provinces of the Netherlands, and perhaps elsewhere around the North Sea region, population continued to grow until at least 1660, but then these areas too experienced a prolonged decline of about 5 percent.[18]

Was this decline in population the product of Malthusian forces—a population growth that exceeded the capacity of the economy to keep pace? McCants discusses this matter in detail elsewhere in this volume. But, to put it simply, although Malthus continues to have forceful advocates, alternative explanations now appear more compelling. The periodic *crise de subsistence* were real enough in their short-term effects but seem incapable of explaining the larger patterns of population growth and decline. Periodic crisis-mortality notwithstanding, overall mortality rates in England were lower in the sixteenth and early seventeenth centuries (resulting in average life expectancy at birth of more than thirty-eight years) than they would be again until well into the nineteenth century. Mortality rates rose significantly during the seventeenth century in England, and they appear to have done so in much of Europe, and, indeed, much of Eurasia as well. Epidemiological factors, substantially exogenous to the socioeconomic systems of the time, appear to have dominated mortality and, hence, the overall course of population change. Thus, rather than a crisis provoked by *endogenous* processes, unique to the technologies, institutions, and reproductive practices of particular societies, the seventeenth-century demographic crisis appears to have had a proximate cause that was *exogenous*—infectious-disease vectors possessing a history of their own, and before which societies stood powerless.[19]

18 On early modern population and demographic history, see de Vries, "Population," in Brady, Oberman, and Tracy, (eds.), *Handbook of European History,* 1–50. Cristof Dipper, *Deutsche Geschichte 1648–1789* (Frankfurt, 1991), 44, presents a population range for the Empire of 18 to 20 million for 1600 and 11 to 13 million for 1650. E. Anthony Wrigley and Roger S. Schofield (eds.), *Population History of England 1541–1871: A Reconstruction* (London, 1981); de Vries and Ad van der Woude, *The First Modern Economy: Success, Failure, and Perseverance in the Dutch Economy, 1500–1815* (New York, 1997), 50–57.

19 The most comprehensive Malthusian interpretation of pre-industrial history is Gregory Clark, *A Farewell to Alms: A Short Economic History of the World* (Princeton, 2007). Ronald D.

An internal Malthusian process of population adjusting to subsistence, however unpleasant to participants, is a repeated, if not a cyclical, process. The resulting crises are not, by themselves, pregnant with epochal change. But exogenous phenomena are felt by society as external shocks that can provoke sudden, unexpected sequences of response. For this reason, advocates of a seventeenth-century general crisis have a strong interest in identifying such shocks. As unanticipated events, they can be profoundly disruptive, and as products of natural history, they can make a crisis general, felt simultaneously by many societies. Potentially, exogenous events that create more or less benign conditions for human life can "coordinate" changes of population across widely separated societies that otherwise are not in close contact with each other.[20]

What, then, explains these coordinated movements of population that span Eurasia? Historians are left to their speculations. A generation ago, McNeill identified a "microbial unification of the world," achieved by Steppe migrations and trade, as the agent of hemispheric coordination; more recently attention has shifted toward the global effects of climate change.[21]

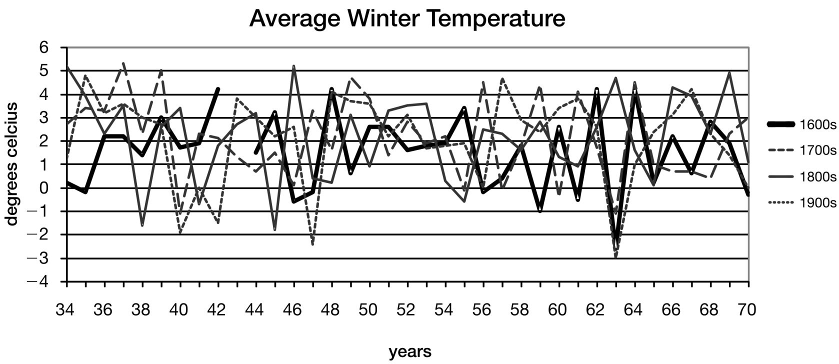
The crisis concept has a natural ally in the Little Ice Age—an extended period of colder average temperatures in Europe. Its beginning and end dates are defined variously, and span nearly the entire early modern period, but there is consensus that the coldest

Lee, "Short-term Variation: Vital Rates, Prices, and Weather," in Wrigley and Schofield (eds.), *Population History,* 356–401; Patrick R. Galloway, "Basic Patterns in Annual Variations in Fertility, Nuptiality, Mortality, and Prices in Pre-Industrial Europe," *Population Studies,* XLII (1988), 275–303; David R. Weir, "Life Under Pressure: France and England, 1670–1870," *Journal of Economic History,* XLIV (1984), 27–47; Schofied, David Reher, and A. Bideau (eds.), *The Decline of Mortality in Europe* (New York, 1991). According to Lee, "A Historical Perspective on Economic Aspects of the Population Explosion: The Case of Pre-industrial England," in Richard A. Easterlin, (ed.), *Population and Economic Change in Developing Countries* (Chicago, 1980): "In pre-industrial Europe, as far back as records will take us, populations swings were largely autonomous, not a response to economic variations" (547).

20 This notion of exogenous events is the premise behind Jack A. Goldstone's *Revolution and Rebellion in the Early Modern World* (Berkeley, 1991). The active agent in his comparative study of state breakdown across Eurasia (the "contemporaneous revolutions" of Europe, the Ming-Qing transition, and crisis in the Ottoman Empire) is population change (27).

21 William H. McNeill, *Plagues and People* (New York, 1976). Braudel, *Civilization and Capitalism, 15th–18th Century. I. The Structures of Everyday Life* (New York, 1981) muses about "the possibility of a physical coherence of the world and the generalization of a certain biological history common to all mankind . . . that suggests one way in which the globe could be said to be unified long before the voyages of discovery, the industrial revolution, or the interpenetration of economies" (49).

Fig. 1 Average Winter Temperature in Holland



NOTE Seventeenth-century average temperatures are estimated from records of ice formation. The maximum temperature is constrained by the method of estimation. Since ice-free winters could be warmer, the average for the entire period is corrected by applying the average for all ice-free winters observed by thermometer observations in the eighteenth and nineteenth centuries.

periods were concentrated in the seventeenth century. Figure 1 displays the average winter temperatures (the average of daily observations for the months of December, January, and February) observed near Haarlem, in the Netherlands, during a thirty-seven-year period in the mid-seventeenth century and, for the purpose of comparison, during the same periods in each succeeding century. The average for the seventeenth-century period is 0.50° C (1.4° F) lower than for any of the later centuries. In addition, and arguably more importantly, extreme winters (both extreme cold and uncommon mildness) were more common in the mid-seventeenth century than in later centuries.[22]

The climate events in Europe were part of global patterns linked to sunspot frequencies (the Maunder Minimum—a striking and unique absence of sunspot observations between 1645 and

22 H. H. Lamb, *Climate: Present, Past and Future* (London, 1977), defined the Little Ice Age as extending from 1550 to 1850, although he supposed its "main phase" was 1550–1700. See also D. Jones and R. S. Bradley, "Climatic Variations over the last 500 Years," in *idem* (eds.), *Climate Since A.D. 1500* (London, 1992), 649–665. The data for the eighteenth century and thereafter are thermometer observations taken at Zwanenburg; the seventeenth-century data are estimated from records of ice formation on canals near Haarlem. For details on the methodology, see de Vries, "Histoire du climat et économie: des faits nouveaux, une interpretation différente," *Annales E. S. C.,* 32 (1977), 198–226.

1715), volcanic eruptions and the subsequent global spread of volcanic dust, and even the El Niño-Southern Oscillation (ENSO) weather patterns that were generated, literally, a world away from Europe. Historians and climatologists have documented the cooling trend and the increased frequency of severe events in the seventeenth century, and several prominent historians have proclaimed the likely importance of climate change to human history. Parker and Smith emphasized "a general deterioration of the global climate" as a cause of the world-wide upheavals of the mid-seventeenth century in *General Crisis,* and Parker recently returned to this theme with even greater conviction, stating that "no convincing account of the General Crisis can now ignore the impact of the unique climatic conditions that prevailed."[23]

With climate, as with so much of the general crisis literature, there is a great deal of suggestive correlation but much less in the way of convincing causation. Between heeding the stricture "not to ignore" climatic anomalies and demonstrating their consequences stands a formidable challenge. The Little Ice Age brought shortened growing seasons and more frequent extreme events that could force farmers to abandon marginal lands, shift to the cultivation of hardier grains, or shift from grain to livestock farming. Indeed, except in peculiar and isolated locations, the impact of climate change (as opposed to the impact of weather on a single harvest) can be difficult to detect among the other variables of a market economy. But climate can have a more direct effect on mortality, one not mediated by food production. The most comprehensive study of the influence of climate change on pre-industrial European society to date concluded that these biometeorological effects dominated any direct effect on food supply in influencing mortality rates. Even in this study, the correlations

23 John A. Eddy, "The 'Maunder Minimum': Sunspots and Climate in the Reign of Louis XIV," *Science,* XCII (1976), 1189–1202; *idem,* "Climate and the Role of the Sun," in Robert I. Rotberg and Rabb (eds.), *Climate and History* (Princeton, 1981), 145–167. William S. Atwell, "A Seventeenth-Century 'General Crisis' in East Asia?" *Modern Asian Studies,* XXIV (1990), 661–682, emphasizes the role of volcanic dust in suppressing agricultural yields in the decade before the end of the Ming dynasty. On historian's views of climate change, see de Vries, "Measuring the Impact of Climate Change on History: The Search for Appropriate Methodologies," in Rotberg and Rabb (eds.), *Climate and History,* 41–44. Parker and Smith, "Introduction," in *idem* (eds.), *General Crisis,* 6–14; Parker, "Crisis and Catastrophe: The Global Crisis of the Seventeenth Century Reconsidered," *American Historical Review,* CXIII (2008), 1077.

remain only suggestive; the causal mechanisms remain to be uncovered.[24]

The histories of prices, population, and production provide economic historians with a framework for the further analysis of economic life. They call special attention to the first half of the seventeenth century, for which the accumulated evidence reveals unmistakably a widespread and often severe setback, the reversal of a long expansionary trend. The reversal took place earlier in the Mediterranean lands than in Northern Europe, but it left few areas unaffected. The reversal was general, but was it a general *crisis?*

To Wallerstein, who set out to write a history of the Europe-centered capitalist world economy, the answer was a firm "no." He opened the second volume of his study, which focused on the seventeenth century, with an introductory section on the crisis concept: "The term *crisis* ought not to be debased into a mere synonym for *cyclical shift.*" From his perspective, the genesis of the system under which we continue to live is found in the long sixteenth century. From that point onward, despite periods of expansion (Phase A) and contraction (Phase B), the emphasis should be placed on continuity: competition among countries, the geographical expansion of this world economy, booms and depressions—all of them contributing to the development of a capitalist system already firmly in existence.[25]

But to Wakeman, the crisis was both consequential and global in scope. It was not possible to write a history of the dramatic and destructive events of mid-seventeenth-century China that brought an end to the Ming dynasty and its replacement by the Qing without framing these events within the context of the European trade crisis, the resulting constriction of silver supplies, and the simultaneous deterioration of global climate. Thus, he introduced his two-volume study, mainly devoted to political history, with a forceful invocation of global crisis:

> Although at a considerable remove, the Chinese economy could not fail to be badly affected by the severe depression that struck the

24 The impact of climate change is the burden of de Vries, "Measuring the Impact," 19–50. For applications to marginal farmlands in Britain, see M. L. Parry, "Secular Climatic Change and Marginal Agriculture," *Transactions of the Institute of British Geographers,* LXIV (1975), 1–13. Galloway, "Long-Term Fluctuations in Climate and Population in the Preindustrial Era," *Population and Development Review,* I (1986), 20.

25 Wallerstein, *Modern World-System,* 3–9.

> worldwide trading system centered on Seville between 1620 and 1660. . . . At the same time, climate and disease took their toll. Unusually severe weather struck China during the period 1626–1640, with extreme droughts being followed by major floods. Frequent famines, accompanied by plagues of locusts and smallpox produced starvation and mass death during this same period. The result was an extraordinary depopulation during the late Ming. . . . There was in any case an unusual demographic dip in China during the years coinciding with the global economic depression.

While historians of early modern Europe cautioned and caviled, those of Asia were prepared to think big.[26]

ECONOMIC CRISIS: WHY IS THE CRISIS IMPORTANT? The notion of an economic crisis originated as a contribution to Marxist interpretation of the transition from feudalism to capitalism. In Hobsbawm's 1954 articles, the crisis stands in for the revolutionary situation that allows the contradictions of the prevailing mode of production (feudalism, in this case) to be overcome and then superseded by a new mode of production (capitalism). The dramatic narrative was pure Marx. "Why," Hobsbawm asked, "did the expansion of the later fifteenth and sixteenth centuries not lead straight into the epoch of the eighteenth and nineteenth century Industrial Revolution? What, in other words, were the obstacles in the way of capitalist expansion?" His answer was that the capitalist elements of sixteenth-century Europe expanded "within a [feudal] social framework which it was not yet strong enough to burst, and in ways adapted to it rather than to the world of modern capitalism." In this framework, the crisis represents the ultimate success of the new mode of production in sundering the fetters of the feudal social order and refashioning the world according to its own needs. This is not merely a period of economic distress; it is a seminal historical event—the transition to capitalism.[27]

Today, evocations of this sort present a problem. Dewald expressed it with a certain delicacy: "As transition itself has come to seem a more elusive phenomenon, the usefulness of crisis as an ex-

26 Frederic Wakeman, Jr., *The Great Enterprise: The Manchu Reconstruction of Imperial Order in Seventeenth-Century China* (Berkeley, 1985), I, 3–8. See also *idem,* "China and the Seventeenth-Century World Crisis," *Late Imperial China,* VII (1986), 1–26.

27 Eric Hobsbawm, "The Crisis of the Seventeenth Century," in Trevor Aston (ed.), *Crisis in Europe 1560–1660* (London, 1965), 15, 28.

planation for it has tended to evaporate." The faith in Marxist historical materialism has largely evaporated, and, more generally, the belief that the British Industrial Revolution represents the unique portal to modern economic life (which Hobsbawm held in a strikingly naïve form) is seriously frayed. But the lost allegiance to old categories of analysis does not mean that nothing remains to be explained. No one can deny the tangible reality of what has come to be called the Great Divergence—the parting of the ways between the material capacities of Western Europe's societies and those of the other major agrarian civilizations of Eurasia.[28]

But do the events of the seventeenth century figure in this Great Divergence? We have already seen that Wallerstein (not to mention Max Weber, and a host of other historians and social theorists) identified the decisive changes at least a century earlier. The divergenists, sometimes referred to as the California School, see Western Europe's decisive parting of the ways later, around 1800. In their view, expounded most fully and firmly by Pomeranz, the British Industrial Revolution emerged out of the same sort of advanced organic economy as had been shared for at least a millennium by China and other Asian societies. It emerged because of specific, contingent historical events, not because of the long-term development within Europe of unique capacities and essential qualities. As Dewald rightly notes, "From this vantage point, the crisis of the seventeenth century loses most of its significance as a social historical event."[29]

What, then, remains of Steensgaard's claim of the "universal recognition of the established truth" of the economic crisis of the seventeenth century? Price history long ago revealed the period as one of reversal, stress, and depression. But this situation, by itself, is not a general crisis. Marxist historiography infused the period with a deep meaning, but the faithful have departed to worship at other altars. Meanwhile, new interpreters have shifted our attention to other historical epochs, dismissing the crisis concept—even as it seeks to drape itself in the regal robes of global history—as a clownish form of Eurocentrism.

28 Jonathan Dewald, "Crisis, Chronology, and the Shape of European Social History," *American Historical Review,* CXIII (2008), 1047. On the fraying of the Industrial Revolution concept, see de Vries, "The Industrial Revolution and the Industrious Revolution," *Journal of Economic History,* LIV (1994), 249–270.

29 Kenneth Pomeranz, *The Great Divergence* (Princeton, 2000); Dewald, "Crisis and European Social History," 1049.

And yet, the crisis concept lives.

Many non-Marxists (including myself) have found Hobsbawm's articles illuminating and have sought to contribute to the concept of general crisis, even though they felt no obligation to historical materialism, the dialectic, or reified conceptions of capitalism. The reason for this attraction may well be found in the useful agenda of specific historical problems that Hobsbawm identified. In his conclusion to "The Crisis of the Seventeenth Century," he claimed to have shown two things: "First, that the seventeenth-century crisis provided its own solution" (in proper dialectical fashion) but, "second, that it did so in indirect and roundabout ways." Thus arises the fruitful historical questions, How could economies of scale be achieved in an economic world of diffuse and weak markets; how could unproductive investment be avoided in the face of the perverse incentive of state and social institutions; and, perhaps most important, how could demand grow on a sustained basis when most of the population earned, and kept, too little income to form a broad market?[30]

THE CRISIS ECONOMY: DECLINE No one doubts that wrenching economic changes came to much of Europe during the first half of the seventeenth century. A logical starting point for the study of these changes is Spain, which long had sustained a growing demand for European manufactured goods, much of it destined for its New World empire and for military supplies needed in several European theaters of war. The Habsburg state's taxation and silver revenues, leveraged by royal borrowing, did much to underwrite this trade, which, in turn, enlivened industries from Italy to the Low Countries. Financing this absorption of resources periodically broke down—hence, the royal "bankruptcies" of 1575, 1577, and 1596 under Philip II—but a much more serious fiscal problem faced Habsburg Spain in the reigns of his successors, Philip III and IV.

A reduction in official silver shipments to Seville beginning after 1610 has long appeared to signal, if not to trigger, a definitive diminution of Spain's fiscal reach. By 1621, Spain's transatlantic trade with the New World was also in full decline, and the renewal of war with the Dutch Republic in that year put further pressure on shrinking public revenue. Another Crown bankruptcy

30 Hobsbawm, "Crisis," 57.

in 1627 led to the demise of Genoa's banking dominance, and the ruin of its international payments system. The following year, Spain was forced to devalue by 50 percent the copper coinage, *vellón,* on which it had come to rely, creating monetary chaos, and months later, Madrid received news that its entire silver fleet, the lifeblood of state finances, had been captured by privateers of the Dutch West India Company. Portuguese bankers replaced the Genoese, but the restoration of the state's creditworthiness proved to be beyond repair.[31]

The decline of Spanish trade with its vast New World empire remains imperfectly understood. The belief that the economies of New Spain (Mexico) and Peru contracted because the Indian population collapsed is now doubted; nor does it appear that overall silver production declined. But a more self-sufficient New World economy, one more resistant to Spanish fiscal exactions, appears to have led to a sharp drop in the volume of trade with Spain (from over 30,000 tons of shipping capacity per year up to the 1610s to 13,000 tons in the 1640s, and even less thereafter) and a similarly sharp drop in Crown revenues in the same period.[32]

The Castilian domestic economy had never been at the commercial and industrial heart of Europe, but its wool exports, textile production, and, most important, its large population, had done much to support the state and the empire. In the face of the aforementioned decline in Spain's population, featuring a true collapse in Castile, the new capital city, Madrid, grew from some 30,000 in 1561 to 130,000 by 1630, thereby drawing resources from a vast region and forcing a sharp, decisive contraction of the traditional

31 Pierre Chaunu and Hugette Chaunu, *Séville et l'Atlantique* (Paris, 1955–1960), 12 v.; Carla Rahn Phillips, "The Growth and Composition of Trade in the Iberian Empires, 1450–1750," in Tracy, (ed.), *The Rise of Merchant Empires* (New York, 1990), 85–90; James Boyajian, *Portuguese Bankers at the Court of Spain, 1626–1650* (New Brunswick, N.J., 1983), 39.

32 On the question of the economy of New Spain, see Israel, "Mexico and the 'General Crisis' of the Seventeenth Century," *Past & Present,* 63 (1974), 33–57, who supports the view that the "general crisis" reached the New World; John J. TePaske and Herbert S. Klein, "The Seventeenth-Century? Crisis in New Spain: Myth or Reality?" *ibid.,* 90 (1981), 116–135, who doubt that New Spain itself suffered economic decline. Another doubter is Ruggiero Romano, *Conjonctures opposes: La crise du XVIIe siécle en Europe et en Amérique ibérique* (Geneva, 1992), 44–45. On trade, and bullion flows between Spain and its empire, see Angel Garcia-Baquero Gonzalez, "Andalusia and the Crisis of the Indies Trade, 1610–1720," in I. A. A. Thompson and Bartolomé Yun Casalilla (eds.), *The Castilian Crisis of the Seventeenth Century: New Perspectives on the Economic and Social History of Seventeenth-Century Spain* (Madrid, 1994), 115–135.

urban network of the Castilian interior. This situation, together with a rising fiscal pressure, undermined agricultural marketing and helped to produce a severe decline of the domestic economy and a disarticulation of Spain's remaining commercial sectors.[33]

Northern and central Italy had long contained much of Europe's industrial activity and commercial leadership. Much of the commercial and banking activity, centered in Genoa, which was closely tied to serving the voracious needs of the Habsburg Empire, suffered with its decline. Industrial production remained important into the first two decades of the seventeenth century, but it suffered immediately and severely from the onset of military activities in Central Europe in 1618 and the renewal of Spain's armed efforts to restore the Netherlands to its obedience in 1621. These events disrupted trade routes both by land and by sea. Nor were markets within the Mediterranean region still dependable outlets for Italian goods. Here, too, demand fell while the sharpened competition for the remaining markets often resulted in victory for new, Northern European (especially English) commercial interlopers.[34]

A succession of catastrophes—harvest failures in the 1590s (which first gave northern traders entrée to the Mediterranean markets) and plague epidemics from 1629 to 1631—intensified a reversal of demographic trends. Overall, Italian population fell by 15 percent, but many cities and regions suffered even larger contractions, especially in the North, where cities of 10,000 and above declined, by an aggregate 32 percent in the first half of the seventeenth century. Between the decline in industrial markets and the decline in the rural populations of long-commercialized agricultural regions, many middle-sized cities suffered severe contractions not only in size but also in institutional power. In Piedmont, Lombardy, and the Veneto—all across northern Italy—a process of "ruralization," sometimes called "refeudalization," took place as urban elites sought more stable investments in agriculture, and industrial production shifted from the high-quality products of ur-

33 John Elliott, *Imperial Spain 1469–1716* (New York, 1963), 294, takes note of the economic consequences of a sudden shortage of labor but places more emphasis on the psychological impact. David Ringrose, *Madrid and the Spanish Economy, 1560–1850* (Berkeley, 1983).

34 Richard Rapp, "The Unmaking of the Mediterranean Trade Hegemony: International Trade Rivalry and the Commercial Revolution," *Journal of Economic History,* XXXV (1975), 499–525; Robert Brenner, *Merchants and Revolution: Commercial Change, Political Conflict, and London's Overseas Traders, 1550–1653* (Princeton, 1993), 23–44.

ban guild-organized craftsmen to a more prosaic output for domestic consumption produced by low-cost rural workers. By the 1640s, Italy's exports were primarily agricultural commodities and raw materials, and Italian merchant communities of Venice and Genoa, among others, had given way to foreign merchants trading at the free port of Livorno.

This recitation of the chief features of the collapse of Iberian and Italian economic life is familiar, and often put in the context of a historic shift of economic leadership from the Mediterranean world to Northern Europe. From early medieval times, the economic life of these two broad zones had exhibited distinctive differences that gave rise to specializations geared toward an active north–south trade. What could not have been expected around 1600 was a sharp relative decline of the Mediterranean population, the collapse of its export industries, the demise of its long-distance trade links, the withering of its commercial cities, and its recourse to exporting mainly raw materials and agricultural products. Yet, by the 1640s, these were the accomplished facts.

Yet, the economic crisis of the seventeenth century was not simply a shift of economic leadership from South to North. Beyond the Alps, the financial centers of Lyon and Augsburg also lost their earlier importance, and throughout Upper Germany, in a large zone well seeded with commercial and industrial cities, urban populations declined by 40 to 50 percent in the first half of the seventeenth century.

The vast zone comprising the Holy Roman Empire experienced devastations of biblical proportions beginning in 1618, as the armies of Catholic and Protestant states moved across the landscape sporadically for thirty years. The destruction of battle was amplified by the depredations wrought by disease and disorder—including the calculated, ruthless disorder visited by the armies on civilian populations. So vast was the hardship across both time and space that it raises the historical question of whether the economic crisis was "general" in large part because of a "unique" political and military conflagration. For this reason, historians have devoted considerable attention to whether the economic decline of Central Europe was a result of the Thirty Years' War—a contingent event—or whether economic problems in the region had already taken hold. In this case, the decades of war may have intensified a pre-existing condition, or, indeed, warfare of such scope and duration may actually have been a consequence of the region's peculiar political-economic structures.[35]

Ogilvie argues persuasively for the latter option. The German economies participated in the general expansion of the sixteenth century, but did so in the multilayered political structure of a "composite state." The Holy Roman Emperor, the electoral states, and the territorial princes were all attempting to expand their powers at each other's expense. This struggle caused every level of state authority to increase taxation and involve itself in new sectors of social life, which, in turn, disrupted the balance of power among social groups, many of which were well organized in the corporate bodies that characterized both urban and territorial society. As Ogilvie observes, "These two German peculiarities (corporatism in social structure and the fragmented political framework of Empire) may or may not have been causally related. But they combined to give a special severity to the German crisis." Local protectionism and rent-seeking were consolidated and extended in this period, severely limiting economic integration in the region for generations.[36]

Economic life in France, taken as a whole, was less severely affected than it was in the areas considered thus far. Relative to the multiple strains under which the society had struggled during the sixteenth-century French Wars of Religion, there were distinct signs of stabilization after 1600. But the overwhelmingly dominant agricultural sector proved incapable of sustaining its expansion after 1600. Much of northern French agriculture experienced a sharp crisis of productivity, concentrated in the period from 1625 to 1650, and long thereafter it remained burdened by low agricultural prices, which discouraged investment. The reversal of trend in the decades on either side of 1600 was also the focal point of a major restructuring of rural social structure in northern France. The combined pressures of rising taxes and rents and weakening prices led to an accelerated concentration of farm land in the hands of elite owners and a consolidation of land into larger holdings. "By 1630, most northern French villagers were divided into a

35 Rabb, "The Effects of the Thirty Years' War on the German Economy," *Journal of Modern History,* XXXIV (1962), 40–51; Henry Kaman, "The Economic and Social Consequences of the Thirty Years' War," *Past & Present,* 39 (1968), 44–61.

36 Sheilagh Ogilvie, "Germany and the Seventeenth-Century Crisis," *The Historical Journal,* XXXV (1992), 432–436, 437.

handful of agrarian entrepreneurs, the farmers, and a large majority of agricultural laborers."[37]

France was by far the largest political unit of Europe; it alone could claim approximately one-quarter of the entire population of Europe through most of the early modern era. Unlike Iberia, Italy, and the German lands, France did not suffer a significant decline of population in this period, but neither did it rise above the 20 million that had been reached by 1600. Its size and diversity may have encouraged the keen interest in protectionism that became the hallmark of its economic policy beginning in the seventeenth century. Even before Jean-Baptiste Colbert pursued his well-known mercantilist measures in the 1660s, Henri IV, Maximilien de Béthune—Duc de Sully—and Cardinal Armand-Jean Duplessis—Duc de Richelieu—had acted to shore up the privileges of towns and their guilds (in return for obedience and payments), chartered royal factories, and promulgated sumptuary laws, all with the aim of controlling and taxing that which they protected. This strategy may account for the relative stability of the major French centers of woolen cloth production—in Amiens, Reims, Rouen, and other places—which always remained focused on domestic markets. But it also encouraged a consolidation of urban power and leadership in the hands of judges, *intendants,* and other royal officials. Merchants in all but a very few large trading centers—Marseille, La Rochelle, Nantes, and St. Malo—were a subordinate force in French towns, and were quick to move their accumulated capital to the safe havens of venal office, noble titles, and landownership.[38]

Around 1600, France ran trade surpluses with all of its European neighbors save one: It was a large net importer from Italy. Nonetheless, throughout the sixteenth century, bullion accumulated in France, and its money supply grew rapidly just as the Crown's revenue needs did. But soon after 1600 this pattern ended. The monetary outflows to Italy diminished as the Lyon–

37 Philip Hoffman, *Growth in a Traditional Society: The French Countryside, 1450–1815* (Princeton, 1996), 184–185; Dewald and Liana Vardi, "The Peasantries of France, 1400–1789," in Tom Scott et al. (eds.), *The Peasantries of Europe from the Fourteenth to the Eighteenth Centuries* (London, 1998), 46.

38 De Vries, "Population," 13. France's population is compared to that of Europe extending eastward to a line drawn from Konigsberg (Kalinengrad) to Trieste. Robin Briggs, *Early Modern France, 1560–1715* (New York, 1977), 55–56; Gail Bossenga, *The Politics of Privilege: Old Regime and Revolution in Lille* (New York, 1991).

Genoa financial nexus fell into disrepair; the inflow of silver from Spain diminished even more. As the volume of Spanish silver declined after 1600, more and more of it moved directly to the Low Countries. Much of that which entered France "seemed to brush past the Atlantic coast," falling quickly into the hands of Dutch merchants resident in the Atlantic ports. The money supply ceased to grow—indeed, it may have contracted substantially—while tax revenues continued to rise. Between the 1600s and 1640s, public revenue rose threefold in per capita terms, literally sucking monetary resources to the capital. For this reason, Paris alone accounted for 60 percent of all French urban population growth between 1600 and 1650. This development powerfully reinforced the rent-seeking proclivities of a weakly developed merchant class.[39]

The domestic focus that France's textile sector enjoyed was not an option available to most other European centers of fine woolen cloths, many of which found it difficult to maintain their production levels as export markets either withered through lack of demand or were closed by state policy and/or warfare. The Venetian industry contracted by half between 1600–1610 and 1630–1640, while Tuscan exports (primarily textiles) also fell by half between 1619 and 1630. The southern Netherlands, for centuries the preeminent textile center of northern Europe, exported some 300,000 pieces of woolen cloth annually in 1611, two-thirds of it to its western European neighbors. This export level could be maintained, more or less, into the 1650s, but only by reorienting the industry toward the colonial markets of the Spanish Empire. By 1655, only 15 percent of exports found markets within Europe.[40]

Woolen cloth was by far England's major export, accounting for 85 percent of all domestic exports in 1640 and 70 percent in 1700. Entering the seventeenth century, its sale on the Continent

39 Frank Spooner, *The International Economic and Monetary Movements in France, 1493–1725* (Cambridge, Mass., 1972), 306, 174. Lyon lost its large Italian merchant colony; the fairs of Piacenza ceased to function in 1622. James Collins, *Fiscal Limits of Absolutism* (Berkeley, 1988), 145–165; de Vries, *European Urbanization* (Cambridge, Mass., 1984), 321 (which provided the data on French cities of at least 10,000 inhabitants used for calculation). Excluding Paris, French urbanization rose only from 4.7% in 1600 to 5.1% in 1650.

40 Domenico Sella, *Crisis and Continuity: The Economy of Spanish Lombardy in the Seventeenth Century* (Cambridge, Mass., 1979), 109–110; Gregory Hanlon, *Early Modern Italy, 1550–1800* (London, 2000), 207; Herman van der Wee, "The Western European Woollen Industries, 1500–1750," in David Jenkins, (ed.), *The Cambridge History of Western Textiles* (New York, 2003), 444–445.

remained the exclusive privilege of London merchant guilds, each with an exclusive export territory secured by Crown charter. The sales of the most important of them, the Merchant Adventurers, seem to have peaked early in the seventeenth century (about 101,000 pieces to all northern European markets in 1609) before falling to less than half that level by 1640. Brenner argues that the English did not lose market share to their rivals; rather, all producers faced a crisis of demand, the English no less than producers in the southern Netherlands. Both sought new markets for their cloth further afield; the English went into head-to-head competition with Italians for Mediterranean markets.[41]

This brief account of the sharp economic contraction of the first half of the seventeenth century seeks to establish several important points. First, the decline was not simply a cyclical downturn; it exhibited structural features. Second, the contraction was not primarily a Malthusian crisis centered in agriculture, even though harvest failures figure as catalysts in certain places. Third, the decline was not limited to the "exhaustion" of Mediterranean economies, leading to a general shift toward northern Europe. The crises of Spain and Italy were certainly dramatic, but they shared features found north of the Alps and Pyrenees. Across France and Central Europe, population decline, agricultural stagnation, the collapse of urban industry, and the dislocation of financial markets were plainly evident.

THE CRISIS ECONOMY: DECENTERING AND RECENTERING Regarding the third point above, even today, some economists hesitate to speak of *the* European economy, since Europe's constituent nations—their (almost) common currency and common trade policies notwithstanding—are capable of highly divergent economic performance. Perhaps for this reason, Elliott recently felt the need to remind the last remaining historians willing to entertain Europe-wide, comparative historical questions of their hopeless obsolescence: "The days when historians would talk of a 'European' economy are now surely past." After all, even in the crisis debate's early stages, "it was already apparent . . . that one region's depression could well be another region's growth." But advocates of a crisis concept were never content to define it simply as a uni-

41 Brenner, *Merchants and Revolution,* 23–24.

versal economic downturn. Rather, the crisis concept holds that the economic reversals led, ultimately, to a regrouping—to a transformation of basic patterns and possibilities of economic life. The challenge has always been to find a common thread—a credible theory—capable of tying together the disparate events of the time.[42]

One such effort seeks to tie Europe, and more than Europe alone, together as a structured, or layered, zone of commercial interaction, that is, as a world-economy. Wallerstein's world-systems theory proposes that a capitalist, European world-economy took shape during the sixteenth century. The building blocks of this organized complexity are the (proto) national states, and, as already observed, Wallerstein has no use for the crisis concept. He sees this world-economy as having been established earlier, through struggles between the Habsburg Empire and its enemies.

Braudel deployed the world-economy concept differently, arguing that it was held together and organized by a hierarchy of cities rather than by territorial states. From the high Middle Ages onward, he argued, this vast economic space was led by a single city that stood at the apex of its trading and financial life. The lead city, always facing challengers, never held its position forever. Braudel narrated the successive predominance of Venice, followed by Antwerp, followed by Genoa. The changes of leadership were always the consequence of major geopolitical challenges. Braudel called this process "decentering and recentering," and, in his account, the most dramatic, drawn-out, and unforeseen of these episodes was the decentering of the European world economy that led, between 1590 and 1610, to the demise of Genoese primacy and the consolidation of economic leadership in Amsterdam. Once established in Amsterdam, the center of economic life of a European world economy, enlarged to encompass much of the world, would remain in the North Atlantic zone, moving after 1750 to London and, by Braudel's reckoning, in 1929 to New York. "Each time a decentering occurs, a recentering takes place, as if the world-economy cannot live without a center of gravity, without a pole."[43]

This city-focused conceptualization of Europe's economic

42 Elliott, "The General Crisis in Retrospect: A Debate without End," in Philip Benedict and Gutmann (eds.), *Early Modern Europe: From Crisis to Stability* (Newark, Del., 2005), 44

43 Braudel, *Civilization and Capitalism, 15th–18th Century. III. The Perspective on the World*

space interprets the changes of the early seventeenth century as primarily a definitive shift of leadership from South to North, but otherwise it leaves an impression of continuity: Leadership passed from one city to another, carrying out the same functions, enjoying the same privileges of dominance. These interpretations are misleading, and understate the significance of the "decentering and recentering" that occurred in—indeed, were an integral part of—the seventeenth-century crisis. The economic decline was not simply an affair of the Mediterranean; it was much broader in scope. Likewise, the urban leadership issue was not a simple matter of passing the torch to a new center; it was more profound, transforming what was still a polynuclear urban system into the first single-centered urban system of an expanding European world economy.[44]

Until the seventeenth century, "the markets and resources of the wider world . . . were subject not to any one but rather to a whole cluster of western empires of commerce and navigation. . . . The merchant elites of a dozen western European emporia shared the commerce of the globe." Genoa and Antwerp certainly loomed large in sixteenth-century commerce, in large part because of their service to the largest empire of the age, but cities such as Seville, Venice, Lyon, Augsburg, London, and Lübeck exercised independent regional functions of broad scope. Political, military and economic events converged to put several of these cities under severe pressure in the later sixteenth century, which, in turn, eroded the financial networks that linked them and their many subordinate centers. The uncertainty, but also the opportunity for new initiative, generated by this state of affairs—the prospect for a profound rather than a routine "recentering"—is critical to the crisis concept.[45]

THE CRISIS ECONOMY: GROWTH There are three questions that must be addressed in assessing the economic expansion of the crisis era: (1) Was it merely the flip side of the coin of the distress and

(New York, 1981), 89–276. For a synoptic view, see *idem, Afterthoughts on Capitalism and Material Civilization* (Baltimore, 1977), 80–104 (quotation, 85).

44 De Vries, *European Urbanization,* 158–172.

45 Israel, *Dutch Primacy in World Trade, 1585–1740* (New York, 1989), 4; Van der Wee, "Antwoord op een industriële uitdaging: De Nederlandse steden tijdens de late middeleeuwen en nieuwe tijd," *Tijdschrift voor geschiedenis,* C (1987), 169–184.

Table 1 Population Trends in Major European Regions

	1500	1550	1600	1650	1700	1750	1800
NW/Med	0.45	0.49	0.53	0.76	0.70	0.69	0.84
NW/RoE	0.14	0.16	0.16	0.24	0.22	0.22	0.26

NOTES NW/Med represents the total population of "northwestern" Europe as a percentage of the population of "Mediterranean" Europe. NW/RoE represents the total population of "northwestern" Europe as a percentage of the population of Europe excepting the northwest. The Northwest encompasses Scandinavia, the Netherlands, Belgium, England, Wales, Scotland, and Ireland; the Mediterranean includes Italy, Spain, and Portugal.

decline chronicled above—an opportunistic exploitation of the weak by the strong? (2) Did this expansion have a novel character (of the sort expected by the theories of Schumpeter and Simiand) that led to a new economy? If so, (3) were the elements of decline and of growth connected—joint products of a single phenomenon that can be called a "general crisis"?

The Urban Network Population growth and urbanization are convenient starting points for the description and mapping of European economic development in the crisis era. Table 1 provides a generalized view of the differential population trends of the entire early modern period. It shows that the long-term course of population change in countries of northwestern Europe did not differ greatly from that of the Mediterranean countries either before 1600 or after 1650. But in the first half of the seventeenth century, a sudden and permanent change took place: Northwestern Europe's population rose from one-half to three-quarters of the Mediterranean population. But the shift in relative size was not confined to this comparison. The same shift took place—in relative terms a somewhat larger shift—in the size of northwestern Europe relative to all of the rest of Europe. Here, too, the only significant change in the entire early modern period was concentrated in the first half of the seventeenth century.

An even more dramatic shift occurred in the distribution of Europe's urban population. Table 2 shows the comparisons for urban population (all cities of at least 10,000 inhabitants). Until 1600, northwestern Europe's urban population did not quite keep pace with that of the Mediterranean, and after 1700, the relationship between the two regions hardly changed. But in the course of the seventeenth century, northwestern Europe's larger cities grew

Table 2 Urban Population in Major European Regions

	1500	1550	1600	1650	1700	1750	1800
NW/Med	0.69	0.63	0.60	0.87	1.12	1.15	1.16
NW/RoE	0.19	0.19	0.20	0.36	0.39	0.38	0.47

SOURCES de Vries, *European Urbanization* (Cambridge, Mass., 1984), 30–37; *idem,* "Population," in Thomas A. Brady, Heiko A. Oberman, and James D. Tracy (eds.), *Handbook of European History, 1400–1600* (Leiden, 1994), 13, which provides updated total population data.

from only 60 percent of the aggregate size of the urban Mediterranean to exceed it, reaching 112 percent of the size of the Mediterranean urban sector. Most of this advance was concentrated in the first half of the seventeenth century. The cities in the northwest did not enjoy relative growth only in comparison with the Mediterranean. Their urban growth was even greater relative to the rest of Europe. Northwestern Europe had an aggregate urban population one-fifth the size of the rest of Europe in 1600; a century later, it had reached two-fifths.

The overall population of northwestern Europe grew while elsewhere in Europe it declined or stagnated; the urban populations in the northwest grew even faster, leading to a distinctly higher urbanization rate in the region. But this fact only begins to describe the divergence observable in the seventeenth century, especially in its first half. Outside of northwestern Europe, urban population growth was highly concentrated in a handful of capital cities. Ten such cities, fed by the growing tax revenues of royal governments, added an aggregate of 355,000 inhabitants from 1600 to 1650 (59 percent of their 1600 population), while all other cities of at least 10,000 inhabitants lost a total of 756,000, or 17 percent of their aggregate 1600 population. These ten cities grew from 12 percent to 21 percent of the total urban population of Europe outside the northwest. The capital cities in northwestern Europe also grew. But they were joined by numerous other growing cities, led by fourteen ports. When the four capitals that were also significant ports are added, northwestern Europe's ports accounted for more than the entire aggregate urban growth of the region, increasing from 50 to 72 percent of the region's total urban population.[46]

46 Expressed as the percentage of total population living in cities of at least 10,000 inhabitants, northwestern Europe was 25 percent more urban than the rest of Europe in 1600; by

As already noted, France and the German lands did not share in this urban growth. French towns, with the notable exception of Paris, tended to stagnate while many Central European cities suffered severely from the direct and indirect effects of the Thirty Years' War. But this urban stagnation and decay did not affect most of their ports on the Atlantic and the North Sea. Whereas the important commercial cities of upper Germany fell into decline (the population of nine cities declined by 42 percent between 1600 and 1650), the North Sea ports extending from Emden to Hamburg grew by 60 percent in the same period. Likewise, the French Atlantic ports from Bordeaux to Dieppe grew by about 30 percent. In sum, Atlantic and North Sea port cities followed a separate course from the rest of Europe's non-capital cities during the first half of the seventeenth century. Thirty cities stretching from Bordeaux to Copenhagen, which together had accounted for 13 percent of Europe's total urban population in 1600, grew to house 21 percent by 1650. Most would continue to grow thereafter, but by 1650 they had made a decisive advance. Elsewhere in Europe, most of the hundreds of cities contracted, ceding ground almost exclusively to the growing capital cities, only one of which (Lisbon) was also a port.

The final aspect of Europe's changing urban patterns concerns the concentration of population in a handful of rapidly growing cities, including cities of exceptional size. In 1600, Europe as a whole possessed nearly 600 cities with at least 5,000 inhabitants. Together these cities accounted for just under 11 percent of Europe's total population. Fifty years later, the number of cities of this size had declined slightly, but so had the total population, leaving the urbanization rate at 11 percent. But in this period, twenty-one cities—mostly capitals and ports, but including several industrial cities—grew rapidly, nearly doubling their aggregate size. By 1650, they contained more than one-quarter of

1700, it was 77 percent more urban. The striking growth of the political capitals in the face of general population stagnation and de-urbanization is strong evidence of the broad scope and profound consequences of what Steensgaard calls the "crisis of redistribution" caused by the rise of state tax revenues in this period. See Steensgaard, "Crisis," 36–44; Bonney, *The King's Debts: Finance and Politics in France, 1589–1661* (New York, 1981). The ten capitals are Berlin, Dresden, Leipzig, Lisbon, Madrid, Paris-Versailles, Rome, Turin, and Vienna. Data come from de Vries, *European Urbanization,* 269–287 (Appendix 1). The four capital cities that were also ports are London, Dublin, Copenhagen, and Stockholm.

the total urban population of Europe. The remaining 850 or so European cities, in the aggregate, contracted absolutely by 13 percent.[47]

Every time period has gainers and losers, but no fifty-year period in the early modern era ever experienced so dramatic a restructuring of its urban networks. Its distinctive features were (1) the rapid growth of capitals, fed by rising tax revenues and by the peaking flow of property income to landowners; (2) the emergence of a string of Atlantic port cities, big and small, that redirected much of Europe's trade from its earlier overland and Mediterranean focus; and (3) the recentering of these and other commercial centers on Amsterdam and the new Dutch Republic. The first feature helped to create a fertile environment for rent-seeking behavior and a crisis of redistribution. The second and third helped to resolve the crisis.[48]

The Atlantic Economies Did this new urban pattern do more than reorder trade and commercial life? Did it also act as a catalyst for institutional changes that helped to fashion national states prepared to protect property rights and market relations? At about the same time as the original crisis debate began to fade among historians, economists took a new interest in the historical development of the institutions of a capitalist economy, and sociologists focused renewed attention on the historical paths whereby the variety of political forms bequeathed by medieval society converged on the nation-state form that dominates the modern world. In both cases, attention tended to focus on the seventeenth century, without, however, making explicit links to the crisis debate.[49]

The arguments developed in this literature were recently for-

47 The twenty-one fast-growing cities were Amsterdam, Antwerp, Brussels, Danzig, Dublin, Hamburg, Ghent, Leiden, Lisbon, Livorno, London, Madrid, Middelburg, Lyon, Marseille, Nantes, Rouen, Paris, Rome, The Hague, and Rotterdam,

48 Paul Hohenberg and Lynn Hollen Lees, *The Making of Urban Europe, 1000–1950* (Cambridge, Mass., 1985), characterize the capitals as "cities of surplus," benefiting from both the shift of total output toward rents, which enriched landowners, and the shift of residence of such landowners toward royal residences for both political and social reasons.

49 On the New Institutional Economics, see Douglass North and Robert Paul Thomas, *The Rise of the Western World: A New Economic History* (New York, 1973); North, *Structure and Change in Economic History* (New York, 1981); *idem* and Barry Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *Journal of Economic History,* XLIX (1989), 803–832; J. Bradford De Long and Andrei Schleifer, "Princes and Merchants: European City Growth before the Industrial Revolution," *Journal of Law and Economics,* XXXVI (1993), 671–702. On the convergence of political forms on the nation state, see Charles Tilly, *Coercion, Capital, and European States, AD 990–1990* (New York, 1990); Hendrik Spruyt, *The Sovereign State and Its Competitors*

malized and tested by Acemoglu, Johnson, and Robinson, who assembled quantitative indicators to test three propositions: that the rise of "Atlantic" trade (to the Western Hemisphere, Africa, and to Asia via the Cape route) strengthened merchant communities in European Atlantic ports; that this trade gave merchant-dominated towns enhanced bargaining power with territorial states to achieve institutions suited to their needs; and that, where this bargaining was not frustrated by an over-powerful absolutism, it succeeded in creating states with effective constitutional constraints on state power, leading to political environments propitious for economic growth. Their model supposes that the Atlantic trades, by themselves, were insufficiently large to account for the long-term economic growth of Europe, but that the opportunities of these trades, acting as a lever, forced the development of political institutions in a few states, which then enjoyed the concentrated benefits of intercontinental trade plus the generalized benefits of efficient economic institutions.[50]

In the words of Acemoglu, Johnson, and Robinson:

> Atlantic trade contributed to European growth through an indirect institutional channel as well as via its more obvious direct effects. Our hypothesis is that Atlantic trade generated large profits for commercial interests in favor of institutional change in countries that met two crucial preconditions: easy access to the Atlantic and nonabsolutist initial institutions. These profits swung the balance of political power away from the monarchy and induced significant reforms in political institutions, which introduced more secure property rights and paved to way for further innovations in economic institutions.[51]

There is not a word in this extract about the crisis of the seventeenth century, but the authors conclude that the essential parting of the ways took place in the early seventeenth century. Indeed, what they describe is very similar to what Hobsbawm had held to be the essential achievement of that general crisis. He had argued that the expanded trade and production of the long six-

(Princeton, 1994); Tilly and Wim Blockmans (eds.), *Cities and the Rise of States in Europe, A.D. 1000 to 1800* (Boulder, 1994).

50 Daron Acemoglu, Simon Johnson, and James Robinson, "The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth," *American Economic Review,* XCV (2005), 546–579.

51 *Ibid.,* 572.

teenth century, so long as it remained constrained by the "structures of a feudal or agrarian society," could not lead to productive investment and continued growth. But he placed much stock on a concentration of trade in a few places, which, by creating a "forced draught" of opportunity, "fanned the entrepreneurs' cupidity to the point of spontaneous combustion," forcing sociopolitical change. Hobsbawm's invocation of "the entrepreneurs' cupidity" is a rhetorical indulgence that diverts us from the main point: The concentration of trade intensified demands for institutional renovation that provide the conditions for the economic "combustion" that would bring resolution to the crisis. Acemoglu, Johnson, and Robinson restate, formalize, and test Hobsbawm's argument that the crisis led to political and social differentiation, which, in turn, allowed for a concentration of economic power in a small portion of Europe.[52]

This interesting, though apparently unintentional, support for an important part of Hobsbawm's original argument places a great deal of weight on a little-examined assumption—that the growth of intercontinental (Atlantic) trade was sufficiently powerful to act as the lever of change in both state and economy. If ever there were highly concentrated "forced draughts" of trade available to stimulate entrepreneurs, they were the imperial trades of Seville's *Casa de Contratácion* and Lisbon's *Casa da India*. These sixteenth-century monopolies grew rapidly, but their stimulative effects were felt much more by the European suppliers (of trade goods), distributors (of tropical commodities), and financiers than by the Iberian economies. Moreover, both trades fell into sharp, absolute decline after 1610. Witness the contraction of the Seville–Atlantic trade. Portugal's trade volume with Asia reached a peak in the 1580s (averaging 3,900 tons of return cargo annually), dropped only slightly around 1610, but fell to less than 1,000 tons per year by the 1630s before wasting away thereafter.[53]

No comprehensive quantitative data reveal the course of long-distance trade within Europe, and within the Mediterranean Sea. But the collapse of both Venice and Antwerp can only mean that the Levant trade (focused on Venice) and the overland trades

52 Hobsbawm, "Crisis," 47.

53 De Vries, "Connecting Europe and Asia: A Quantitative Analysis of the Cape-route Trade, 1497–1795," in Dennis Flynn, Arturo Giráldez, and Richard von Glahn (eds.), *Global Connections and Monetary History, 1470–1800* (Aldershot, 2003), 56.

connecting the Low Countries with Central Europe, Upper Germany, and Italy (focused on Antwerp) declined substantially. Indeed, overland trade in general tended to decline in favor of coastal routes, and these coastal routes, stretching from the Baltic and the White Sea in the north and east to Iberia and into the Mediterranean—to ports such as Livorno and Smyrna—had devolved to the ports of the Dutch Republic by the early seventeenth century. The recentering was paired with a reorientation of intra-European trade links from land to sea.

The tolls levied by the kings of Denmark on shipping through the Sound reveal the course of the Baltic trade, which had come to be dominated by Hollanders in the sixteenth century, and which continued to grow—albeit with sharp, short-term fluctuations—into the 1650s, buoyed by the western demand for grain, timber, and naval stores. This trade was linked with an Atlantic coastal trade to France and Iberia (an intermittent trade sensitive to political relations) that carried salt, wine, and silver to the Dutch Republic and beyond to the Baltic. Finally, both the Republic and England became active traders in the Mediterranean region. Dutch ships first entered in the 1590s (nineteen in an average year) with Baltic grain to relieve famine conditions, but they eventually developed markets in Italy and the Ottoman Empire, exporting textiles and other manufactures and returning with fibers and other raw materials. Spain periodically denied the Dutch access to the Mediterranean, but by the 1640s, an annual average of ninety-eight Dutch ships traded in this zone. By the 1690s, the number of ships had reached 123. The English, in part because they suffered fewer political disabilities, had an even greater success in Mediterranean markets. As Northern European markets for English textiles stagnated, alternative markets were sought in the Mediterranean, but even more important was a growing import trade.[54]

The expansion of Dutch and English trade was not impervious to the market contractions and disruptions described above. The commercial shocks that occurred from 1618 to 1621 affected it as much as it did the rest. But unlike their continental competitors, with every oscillation of the political and business cycle, they

54 De Vries and Van der Woude, *First Modern Economy,* 381; Brenner, *Merchants and Revolution,* 23–33.

clawed back their earlier gains and then some. It is precisely this differential capacity to protect and increase market share in a period of general contraction that goes to the heart of the crisis concept.[55]

Finally, the intercontinental trades were not so much the foundation of economic growth in northwestern Europe as a further embroidering on a complex of commercial practices, technologies, and public institutions that had developed within Europe. The English and Dutch ventures to Asia were possible because of earlier ventures to the Mediterranean and the White Sea, which had been risks accepted in order to overcome, or circumvent, the stagnation of traditional European markets. The Asian expeditions of Dutch and English private partnerships were quickly bundled into state-sanctioned monopoly companies, which soon attracted competitor companies sponsored by other northern European states. The Dutch East India Company (VOC) quickly gained a dominant position in this competition, but the Asian trade of the northern nations together overtook the Portuguese by the 1610s (in shipping volume returned to Europe), growing steadily until deep into the eighteenth century. By 1650, the Asian trade of the northern companies was three times larger than the Portuguese trade at its peak, and the VOC had become not only the first joint-stock trading company, but one of the most profitable of all time.[56]

In Asia, the northern traders supplanted the archaic organizational forms of the Portuguese monarchy (Crown-operated vessels sharing shipping space with private traders) with more commercially oriented, armed private trading companies. In the New World, their task was more complex, since the Spanish Empire, however ineffective commercially, could not readily be dislodged from its positions of strength. Through a variety of initiatives (in-

55 The disruptions to English trade are well described in Barry Supple, *Commercial Crisis and Change in England, 1600–1642* (New York, 1959). Israel, *Dutch Primacy,* places particular emphasis on the importance of the changing political environment on Dutch trade, viewing the period from 1621 to 1647 as one of "relative stagnation and profound restructuring" (121).

56 The English East India Company was founded in 1600 and the VOC in 1602. The French followed in 1615 and the Danes in 1616. For a fuller account of the VOC, see de Vries and van der Woude, *First Modern Economy,* 382–396. An investor who purchased the initial offering of VOC shares in 1602 would have received a total return in 1648 (dividends plus capital gains) averaging 27 percent per annum over the entire period.

terloper trade, trading posts with native peoples, settler colonies, and plantation zones), mostly beyond the geographical reach of Spain's capacity to enforce a monopoly, a rival New World economy was stitched together. Until the 1650s, it is doubtful whether the growth of northern trade with the New World fully compensated for the decline of Spain's New World trade. But, for the most part, the two were not in direct competition; the extractive economy of Spain was not so much supplanted as superseded by commodity exporting economies that fed the northern European ports with commodities (tobacco, sugar, indigo, furs, and pelts) for processing and distribution throughout Europe.[57]

Around 1650, the Dutch alone sent more ships across the Atlantic (about 280 per year) than they sent to the Baltic in the best years of what the Dutch called their "mother trade." The Dutch would not long maintain such a high profile in the Western Hemisphere; the mercantilist policies that spread through Europe after 1650 systematically restricted their sphere of action. But by then, a new template had been crafted, and the second Atlantic economy, including its critical African trading and slaving component, grew enormously in the century after 1650, overall by at least 2 percent per annum. This new economy enlivened most of the French Atlantic ports, especially Rochelle and Nantes, with St. Malo flourishing as a center of the Newfoundland fishery and whaling. The total tonnage of French merchant shipping doubled in the thirty years after 1660, largely to serve the new Atlantic trades.[58]

Britain would become the greatest beneficiary of the new Atlantic economy, although most of its relative gains were achieved in the eighteenth century. Nonetheless, its range of North American and Caribbean island possessions already generated trade that gave employ to 29 percent of its ocean shipping capacity in 1663.

57 Steensgaard, *The Asian Trade Revolution of the Seventeenth Century: The East India Companies and the Decline of the Caravan Trade* (Chicago, 1974).

58 Victor Enthoven, "An Assessment of Dutch Transatlantic Commerce, 1585–1817," in Johannes Postma and Victor Enthoven (eds.), *Riches from Atlantic Commerce: Dutch Transatlantic Trade and Shipping, 1585–1817* (Leiden, 2003), 402; de Vries, "The Dutch Atlantic Economies," in Peter Coclanis (ed.), *The Atlantic Economy during the Seventeenth and Eighteenth Centuries* (Columbia, S.C., 2005), 1–29; Ralph Davis, *The Rise of the Atlantic Economies* (Ithaca, New York, 1973), 226.

Table 3 Dutch and English Shipping Tonnage

	DUTCH	ENGLISH
1567	157,000	
1572		50,000
1582		67,000
1629		115,000
1636	305,000[a]	
1670	394,000	
1686		340,000

[a] Excluding VOC and WIC (Dutch West India Company) ships.
SOURCES Ralph Davis, *The Rise of the English Merchant Shipping Industry* (London, 1962), 27, 395–408 (Appendix A); Jan Luiten van Zanden, "Economic Growth in the Golden Age, 1500–1650," *Economic and Social History in the Netherlands,* IV (1992), 19.

This shipping capacity doubled by 1683, when it accounted for 37 percent of a rapidly growing merchant fleet.[59]

Altogether, Dutch and English foreign trade grew substantially through the era of crisis. Comprehensive measurements of this advance are few and not without interpretive problems, but the most telling measurement might be the overall growth of tonnage of the Dutch and English merchants fleets. Table 3, which displays the available estimates, suggests a threefold increase of shipping capacity in England and the Dutch Republic over the course of approximately a century.

The growth of the value of Dutch foreign trade (excluding the VOC's trade) is reflected, in broad terms, by the yield of customs levies. Since these taxes were collected by regional admiralties, and the rates and term were periodically revised, they are not a straightforward mirror of trade value, but for current purposes, it is enough to note that the yield rose by 60 percent between 1590 and the early 1620s, and by another 60 percent from that point to 1650. English foreign trade, heavily dependent on the export of woolen cloth, did not grow rapidly to the 1620s. But it grew by 73 percent between 1622 and the 1660s, led by the early growth of colonial imports and re-exports.[60]

59 Davis, *The Rise of the English Merchant Shipping Industry* (London, 1962), 17.
60 Marjolein 't Hart, *The Making of a Bourgeois State* (Manchester, Eng., 1993), 103; Davis, "English Foreign Trade, 1660–1700," *Economic History Review,* VII (1954), 151–154; David Ormrod , *The Rise of Commercial Empires: England and the Netherlands in the Age of Mercantilism, 1650–1770* (New York, 2003), 56.

The growth of trade in this Atlantic zone was partly a *diversion* of earlier trade flows focused on Iberia and on overland routes. But much more was a *creation*—the product of lowered costs that flowed from improvements in shipbuilding technology, commercial practices, legal protections, and capital markets. Considering the model developed by Acemoglu, Johnson, and Robinson, the question arises, did the Atlantic zone break away from the rest of Europe economically because of the new bargaining power of its growing merchant communities?

The Dutch Revolt and the resulting formation of a merchant-dominated United Republic could, with broad historical brushstrokes, be interpreted in this way, but the essential achievement occurred well before the first Dutch sea captains ventured to intercontinental destinations. The merchants encouraging the Revolt were European—primarily Baltic—traders, who secured, within a decentralized, urban-led polity, an institutional framework that supported free, competitive commercial activity within Europe (and state-sanctioned, monopoly trading companies outside Europe).

The French Atlantic ports grew later, in the seventeenth century, but the privileges that they secured from the Crown were neither dependable nor cheap. Indeed, the Crown was perfectly capable of laying siege to its own merchants (if they were Huguenots, as in La Rochelle in 1627/28) harassing foreign merchants into marginalization (the important resident Dutch merchant communities in mid-century Atlantic ports), or expelling them from French soil altogether (the Revocation of the Edict of Nantes of 1685). The Atlantic ports, as Fox showed so elegantly, remained in France but not of France. Their trade relayed goods to other parts of Europe more than they penetrated the French economy—let alone transformed the French state.[61]

In England, the merchant community of London was far more important than that in all of the other outports combined, and their importance was bolstered—if not defined—by their alliances with the Crown as codified in the charters of the regulated companies (merchant guilds) conferring monopoly rights to trade

61 On the difficult position of the Dutch merchant communities in France, see Henriette de Bruyn Kops, *A Spirited Exchange: The Wine and Brandy Trade between France and the Dutch Republic in Its Atlantic Framework, 1600–1650* (Leiden, 2007). Fox, *History in Geographical Perspective,* 174.

English goods in various zones of Europe. The essential transition made by England was to replace these exclusive group privileges with a comprehensive national privilege, which the English achieved in three stages: first with Cromwell's Navigations Act of 1651, which established a system of national protection; next with the demise of the regulated companies; and finally with the development of a new national institutional framework of taxation, finance, and protection after the Glorious Revolution of 1688.

This important achievement, which undercut the rent-seeking world of merchant guilds currying favor with the Crown, is not plausibly explained as the simple product of an enhanced bargaining power of English merchants. It took the landing of a vast armada, the extended occupation of London by a Dutch army, and the installation of the Dutch *stadholder* as king to bring this process to completion. More importantly for the crisis thesis, these glorious events had their particular consequences because of the pressure for reform that England (and other European polities) felt so acutely in the face of stagnant markets and sharpened Dutch competition. Jacob Soll's essay in this volume describes the crisis-induced challenge faced by Europe's monarchical states to embrace accountancy, numeracy, literacy, and an open, information-rich style of public administration or leave the field of competitive economies. This challenge was long in the making, with roots in Renaissance thought, Italian merchant practice, the printing press, and much else. But it could no longer be evaded in the economic pressure cooker of the seventeenth-century crisis.[62]

Industrial Production and Consumer Demand The processes of urban differentiation and concentration described above were both striking in their effects and temporally compact in their incidence. Thus, they offer highly credible support to the crisis concept. But, urban commercial activities—however much attention may be drawn to them as representing "advanced" economic life—involved only 10 to 15 percent of Europe's population. In order to have a transformative effect, the long-distance trade and

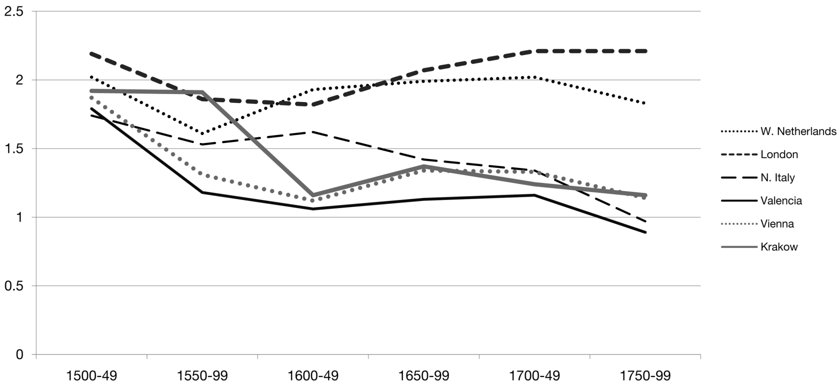
62 The enhanced bargaining power of merchants is the explanation that Acemoglu, Johnson, and Robinson offer in "Rise of Europe," following the influential "new institutionalist" interpretation of North and Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *Journal of Economic History,* XLIX (1989), 803–832. Lisa Jardine, *Going Dutch: How England Plundered Holland's Glory* (New York, 2008), 22–29, offers a fresh, if overwrought, account of the Glorious Revolution.

financial markets of the towns needed to interact with the larger, predominantly rural society. Hobsbawm emphasized this point repeatedly in his crisis essay. How, he asked, could mass demand capable of absorbing the output of a capitalist economy ever emerge from a feudal and agrarian social framework? Capitalist production had to find ways of "creating its own expanding markets." Hobsbawm framed the question in such a way as to draw attention to the importance of social organization and its relationship to the character of consumer demand. This was an important suggestion, but he left it for others to develop plausible answers to his questions.[63]

First of all, the accumulating body of price histories available when Hobsbawm wrote had established that real wages of laborers—the purchasing power of daily wages—declined throughout the price revolution of the long sixteenth century. The crisis era coincided with a historic nadir in consumer well-being, hardly a propitious environment in which to search for seeds of consumer-driven growth. Recent research, introducing new data, including wage comparisons with Asia, and more refined measurements of purchasing power, adds important nuances to the established picture. Although real wages declined everywhere in the sixteenth century, the decline was more muted, and gradually arrested, in the Low Countries and parts of England. Figure 2, which charts the real wage of six European cities and regions in fifty-year averages, shows how Holland and London part company from the overall pattern in the first half of the seventeenth century. Thereafter, these series again follow similar trends, but with a large gap separating northwestern Europe from the rest of Europe. Comparable data for India, China, and Japan are less abundant but show real wages (making allowance for the different foods consumed in different places) that were broadly comparable to those of Europe outside the northwest. In short, there *was* a "great divergence." It did not separate Europe from Asia; rather, it separated a region of Europe from the rest of Eurasia. It did not take the form of rising real incomes so much as an avoidance of

63 Europe's urban population (towns of at least 5000 inhabitants) rose gradually from 9.6 to 13.0 %, between 1500 and 1800. The seventeenth century was completely unexceptional with respect to its overall urbanization; rather, it was a period of internal reorganization and concentration of urban population. De Vries, *European Urbanization,* 69–77. Hobsbawm, "Crisis," 46.

Fig. 2 Welfare Ratios (Daily Wages Relative to Poverty Line) for Craftsmen, 1500–1799



SOURCE Robert Allen, "The Great Divergence in European Wages and Prices from the Middle Ages to World War I," *Explorations in Economic History,* XXXVIII (2001), 428.

continued deterioration, and it took place neither around 1500 nor 1800 but during the elusive era of crisis.[64]

The real wages of laborers—their ability to purchase basic articles of consumption, mainly foodstuffs, with their daily wage—is important but not the whole story. Besides comparisons across space, we are also interested in class-specific comparisons within a given economy. Over the entire early modern period, the prices of staple foods rose much more than the prices of manufactures and luxuries. The purchasing power of the rich (whose consumption basket is less heavily weighted by staple foods) fared much better than that of laborers, increasing income inequality in most of Europe. But in this case, too, the mid-seventeenth century

64 The much-cited articles of E. H. Phelps Brown and Sheila V. Hopkins—collected in *A Perspective of Wages and Prices* (London, 1981)—measured the wages of southern English building laborers against a simple consumer price index year by year from 1265 to the mid-twentieth century. In "Seven Centuries of Building Wages"—originally published in *Economica,* XXII (1955), 195–206—they revealed the first half of the seventeenth century as the most difficult period of the entire seven-century span of their study. Several modifications have been proposed to this time series, most recently, and most comprehensively, by Gregory Clark, "The Condition of the Working Class in England, 1209–2004," *Journal of Political Economy,* CXIII (2005), 1307–1340. Robert C. Allen, "Real Wages in Europe and Asia: A First Look at the Long-Term Patterns," in *idem,* Tommy Bengtsson, and Martin Dribe (eds.), *Living Standards in the Past: New Perspectives on Well-Being in Asia and Europe* (New York, 2005), 111–130; *idem,* "The Great Divergence: Wages and Prices from the Middle Ages to the First World War," *Explorations in Economic History,* XXXVIII (2001), 411–447.

forms a rough dividing line. The trend toward growing inequality was soon to cease, or even reverse, for at least the next century.[65]

The reasons for the halt to escalating inequality were that staple food prices declined, increasing the purchasing power of the poor; the prices of a new range of "accessible luxuries" from both Asia and the New World (cotton textiles, sugar, and tobacco, followed by tea and coffee) declined substantially as the new trading companies increased the scale of their operations; and European manufacturers, facing intense competitive pressures, experienced an acceleration of a longer process of re-organization and relocation that brought cheaper products to broader markets (often called "proto-industrialization"). Gutmann's study of the broad sweep of early modern Europe's industrial development situates this development squarely in the context of the broader crisis: "Urban industry encountered the final stages of a crisis in the seventeenth century. It was a crisis of profitability, and the creation of rural industry was both a cause and a consequence."[66]

The historical concept of *proto-industry* emerged in the waning days of the general-crisis debate but, with very few exceptions, such as Gutmann's book, the links with the crisis concept were not developed at the time. It would be the fate of the proto-industry concept quickly to follow the crisis concept into the historiographical dustbin—in part, because historians then focused almost exclusively on developing connections between proto-industry (rural, household-based production of manufactures sold, via merchant intermediaries, in nonlocal markets) and the emergence of factory industry. The great number of connections explored did not help to preserve a coherent definition to the concept, but they tended to focus on the emergence of an impoverished, rapidly growing, landless proletariat. In a few regions, these rural industrial zones eventually made a transition to modern industry, but in many more, no such transition ever took place. Proto-industrialization may have been part of the economic crisis in some areas (its rise can be linked to the decline of many urban industries), but the notion that the spread of rural industry acted as

65 Hoffman, David S. Jacks, Patricia A. Levin, and Peter H. Lindert, "Sketching the Rise of Real Inequality in Early Modern Europe," in Allen, Bengstsson, and Dribe (eds.), *Living Standards in the Past,* 131–172.

66 Gutmann, *Toward the Modern Economy: Early Industry in Europe, 1500–1800* (Philadelphia, 1988), 93.

a powerful corrosive to the old feudal, agrarian society, everywhere clearing a path for modern economic growth, has failed nearly every empirical test.[67]

Since these zones of rural industry emerged in many parts of Europe—from Catalonia and Tuscany to Ulster, and from Brittany to Silesia—and grew in one place or another throughout the early modern period, linking proto-industry directly to the crisis would seem to be an unpromising project. But the key issue regarding proto-industry, like so much else in the seventeenth century, is not where and when it first arose but how it interacted with the social and political institutions of Europe's polities, and how it developed in the context of urban networks. Ogilvie has demonstrated through detailed studies of Württemberg and Bohemia that proto-industrial regions developed in radically different ways, depending on differences in existing social institutions. I have sought to reveal the strong links between the intensification of proto-industry and the construction of urban networks suitable for the regional and international distribution of both the output of proto-industrial regions and the market-based consumption of proto-industrial households.[68]

Proto-industry reduced the cost of production of a broad range of common industrial products and increased the elasticity of supply by its mobilization of underutilized labor. But even more importantly, it altered the incentive structure of rural labor. A growing, low-cost supply of labor was mobilized not only by bitter necessity but also often by new consumer aspirations. Where incentive goods could be supplied, and where social institutions permitted households to act on these new opportunities, proto-industrialization had vastly different consequences than where it was embedded in more constrained physical and social

67 A good summary and critique of the proto-industrialization literature, on which the comments in this paragraph are based, is Ogilvie and Markus Cerman (eds.), *European Proto-industrialization* (New York, 1996), esp. 1–11, 227–239 (the editors' opening and closing chapters). Ogilvie, "Social Institutions and Proto-industry," in *idem* and Cerman (eds.), *European Proto-industrialization,* 24.

68 Proto-industrial zones were particularly thick on the ground in northwestern Europe, They developed faster in the seventeenth century than ever before, but it was never a priority of those who developed the concept to establish a chronology. Ogilvie, "Social Institutions," 23. See also *idem, A Bitter Living* (New York, 2003); *idem* and Jeremy Edwards, "Women and the 'Second Serfdom': Evidence from Early Modern Bohemia," *Journal of Economic History,* LX (2000), 961–994; de Vries, *European Urbanization,* 231–246.

environments. It helped to make industrious behavior worthwhile for larger circles of households.[69]

Thus, although market signals that advanced the spread of rural industry may have been pan-European, the response to them was not. Where the incentive structure had been altered, where rural areas were well connected to regional urban networks, and where households had access to the new products of long-distance trade, consumer demand could grow: To paraphrase Hobsbawm, capitalist production had found ways of creating its own expanding markets. But these expanding markets were not primarily the product of "forced draughts" of concentrated demand from colonies and capital cities, important though they were. Rather, the market expansion was the product of a new household industriousness, motivated by new consumption possibilities rather than forced into market production by coercive means. This "industrious revolution" unfolded over an extended period of time, but its *locus classicus* in time and in space was mid-seventeenth-century northwestern Europe. There household structures, urban networks, political institutions, and trading opportunities combined in a historical moment of decentering to bring about a concentration of economic activity and a further differentiation of institutions that soon consolidated into a "great divergence" that would long endure.[70]

The conjuncture of seventeenth-century economic events was not easily comprehended by contemporaries; nor is it easily reconstructed by historians. Several strands of development converged to (1) create a more fully articulated urban network that injected scale economies into a world of diffuse markets; (2) strengthen, in a few places, institutions that could preserve capital, reduce the scope for rent-seeking behavior, and shield information-rich social environments from suppression; and (3) alter the incentive structures faced by households to enlarge both the supply of and the demand for a gradually expanding range of non-staple consumption. It would take generations for these developments to achieve

69 The expression, "incentive structure," is used by Stephen R. Epstein, *Freedom and Growth: Markets and States in Pre-modern Europe* (London, 2000), 2. De Vries, *The Industrious Revolution: Consumer Behavior and the Household Economy, 1650 to the Present* (New York, 2008), 9–19, 96–104.

70 Hobsbawm, "Crisis," 46.

full fruition, and all of them had antecedents. Yet in a relatively brief period, a concentration of economic power in a limited area and the pressure that it placed on the rest of Europe set in motion a chain of events that silently reconfigured European economic life. These events were real and broadly consequential; they deserve a name.