

Economy of Europe in an Age of Crisis

1600-1750

JAN DE VRIES

Associate Professor of History, University of California at Berkeley

CAMBRIDGE UNIVERSITY PRESS
CAMBRIDGE
LONDON · NEW YORK · MELBOURNE

Published by the Syndics of the Cambridge University Press
The Pitt Building, Trumpington Street, Cambridge CB2 1RP
Bentley House, 200 Euston Road, London NW1 2DB
32 East 57th Street, New York, NY 10022, USA
296 Beaconsfield Parade, Middle Park, Melbourne 3206, Australia

© Cambridge University Press 1976

First published 1976

Library of Congress Cataloging in Publication Data

De Vries, Jan, 1943-

Economy of Europe in an age of crisis.

1. Europe - Economic conditions. 2. Europe - History.

I. Title.

HC240.D48 330.9'4'055 75-30438

ISBN 0 521 21123 9 hardcovers

ISBN 0 521 29050 3 paperback

Transferred to digital printing 2003

Contents

Preface	
1	The age of crisis 1
	<i>Introduction</i> 1
	<i>Population</i> 4
	<i>Economic trends</i> 16
	<i>Explanations</i> 21
	<i>Economies in decline</i> 25
2	The agrarian economies on divergent paths 30
	<i>Peasant agriculture</i> 30
	<i>Increasing output</i> 36
	<i>Diverging structures</i> 47
	<i>The peasantry: disappearing or consolidating?</i> 82
3	Restructuring industry 84
	<i>Industry and the agricultural depression</i> 84
	<i>Industrial location and the diffusion of skills</i> 86
	<i>Technological change</i> 90
	<i>Organizational change</i> 94
	<i>The textile industry</i> 98
	<i>The dynamic of proto-industry</i> 105
	<i>The proletariat: a new class?</i> 110
4	The dynamism of trade 113
	<i>European trade</i> 113
	<i>Non-European trade</i> 128

5	Urbanization and regional trade	146
	<i>Units of economic life</i>	146
	<i>Urbanization</i>	148
	<i>The grain trade</i>	159
	<i>Energy supplies</i>	164
	<i>Transportation facilities</i>	168
6	Capitalism creating its own demand	176
	<i>The character of demand</i>	176
	<i>Consumer demand</i>	182
	<i>Investment</i>	192
	<i>Government demand</i>	200
	<i>Foreign demand</i>	207
7	Capital accumulation and the bourgeoisie	210
	<i>The sources of capital</i>	210
	<i>Bourgeois aspirations</i>	214
	<i>Investment opportunities</i>	219
	<i>Short-term credit and banks</i>	226
	<i>The bourgeoisie: rising or ossifying?</i>	232
8	Mercantilism, absolutism, and economic growth	236
	<i>The state</i>	236
	<i>Conclusion</i>	243
	Notes	255
	Index	276

Tables, figures, and maps

Table 1	Population of Europe	5
Table 2	Average age at first marriage for women	10
Table 3	Atlantic slave trade, 1601-1760	140
Figure 1	Climate trends in northwestern Europe	13
Figure 2	European trade indicators	14
Figure 3	Trends in textile production	18
Figure 4	Population of London, Paris, and the Dutch "Randstad"	156
Figure 5	Cost-of-living indicators	185
Figure 6	Wage rates	186
Map 1	Europe, showing regions mentioned in the text	31
Map 2	New World, showing colonies and major trade centers	126
Map 3	Asia, showing colonies and major trade centers	129
Map 4	Europe, showing major cities and approximate population in 1700	150

1

The age of crisis

Introduction

The subject of this book is the economic life of the five generations of Europeans who lived in the last great epoch before the onset of industrialization. This epoch, variously labeled as traditional or classic Europe, or the *ancien régime*, stands between two periods of notable economic expansion. It begins as the long sixteenth-century expansion - which includes the organization of a world-wide network of trade links - sputters fitfully to its end. Around the mid-eighteenth century it is dissolved by a quickening of demographic and economic life that inaugurates a long secular expansion. Fundamentally shaped by the Industrial Revolution, this new expansion altered the most enduring structural characteristics of economic life to usher in the Brave New World that we inhabit today.

The economic history of the seventeenth and early eighteenth centuries has long attracted attention for what light it could shed on the periods that preceded and followed it: here one could perhaps find the causes of the exhaustion of the vast empires and early capitalism of the sixteenth century as well as the preconditions of modern industrialization. While this period forms an identifiable unit in economic history, it does not readily offer unifying themes for the historian. Perhaps for this reason many historians have focused their attention on the structure - the immutable features - of

economic and social life in this period. Such work has uncovered much that we shall make use of, but the emphasis of this volume is placed on identifying patterns of crisis and change and analyzing the processes by which the economy of traditional Europe was transformed.

The unfolding of economic life, even in the absence of dramatic new inventions or conquests, is shaped by irreversible processes. Modern economic theory relies heavily on the concept of stable equilibria toward which economic life tends to converge even though nudged away by some impulse. But, in fact, the varied impulses that affect an economy more often move it, however slightly, to new positions from which it is impossible to recapture precisely the former position. Of course, the existence of this historical dimension in all economic phenomena does not mean that economies are propelled irresistibly forward. On the contrary, the forces that gave momentum to the economic life of this period generated cleavages and had a pronounced differentiating impact. The period was seen by some nations as a golden age, or at least the precursor to one, while it was for others an era of decadence and collapse. For all, the heavy impress of the past unavoidably limited the possible responses to new opportunities and pressures. One of those pressures was created by the drive of several social groups - each in its own way - to grasp control of a new, more usable economic power.

The seventeenth century has sometimes been labeled an age of power, in reference to the bureaucratic and military muscle of the absolutist states. The label is also appropriate in describing an economy in which the energy of hundreds of thousands of east European serfs was needed to produce enough surplus grain to feed a handful of west European cities, tens of thousands of Spanish muleteers were kept occupied in supplying a single city, Madrid, with necessities, millions of slaves were shackled to the Brazilian and

Caribbean plantations to supply Europe with sugar, and untold thousands of horses were doomed to a life of endless circling while harnessed to grain mills and industrial machines.

Resources such as these - cumbersome and difficult to control - were the foremost requirement for economic growth, and they did not come easily. Increasing their supply could not be accomplished without altering the very structure of the society, for they were hidden in an economy of households, villages, and economically autonomous market towns and small administrative cities. Primarily labor, but also foodstuffs, raw materials, and capital had to be liberated from this bound, localized economy to be marshaled for use in the larger-scale regional and international economies.

The merchants of Amsterdam and London, the administrators of Louis XIV's France, Gustavus Adolphus' Sweden, and Frederick William's Prussia, the military recruiters of the new standing armies all in their ways were working to open up the bound, local economy. There were, of course, powerful interests to defend the status quo, and the atmosphere of tension that necessarily arose was exacerbated by the crude tools used to increase the larger economy's claims on the local economy. Consequently the seventeenth century is marked by an unusual number of civil disturbances: aristocratic protests against the growth of the bureaucratic state and peasant revolts against new taxes, changed land tenure conditions, and food distribution measures that offended a sense of economic justice.

The tension and suspicion that accompany most assaults on settled practice were magnified in this period by the fact that the long sixteenth-century expansion of the European economy came to an end in the beginning decades of the century and a half under consideration in this volume. Thereafter political and social innovations in most of Europe had to accommodate to a new, more hostile economic environment.

The task of this chapter is to outline the characteristics of the economic crisis that settled in during the first half of the seventeenth century.

Population

The European population, which had grown remarkably from the late fifteenth century and had in many areas far surpassed the levels attained in the early fourteenth century, gradually ceased growing in the seventeenth century. This new era of population stagnation differed from its fourteenth-century predecessor in the great variation of its timing and severity among the regions of Europe. In some areas of the Mediterranean the cessation of growth began in the 1570s while in some northern regions the growth trends did not break until the 1660s. Similarly, some areas suffered major reversals while others noticed only a check in the rate of growth. In any case, by the 1630s the rapid expansion of the labor force, which had been the chief instrument of increased output and relative price changes, was no more.

The most destructive demographic reversal hit central Europe. Around the numerous battlegrounds of the Thirty Years' War, economic dislocation and military operations combined with plague epidemics, particularly in 1628, 1635, and 1638, to decimate populations. In Hither Pomerania and Mecklenburg the population fell by 40 percent. Although certain principalities, particularly along the North Sea and in the Alpine regions, suffered much less, the population of the Holy Roman Empire as a whole probably declined by well over a quarter in the 1630s and 40s. The mid-seventeenth century brought destruction on a similar scale to Poland, while the Danish-Swedish war of 1658-60 occasioned a sudden 20 percent decline in the Danish population.¹

The Mediterranean formed the other major region of declining population. Here, too, the pattern showed great variation. During the first half of the seventeenth century,

Italy as a whole declined from 13 to 11 million inhabitants, while northern Italy, the industrial heartland of Europe, lost a quarter of its population. In Castile the great plague of 1599-1600 was only the first of a series of reversals (both man-made and God-inflicted) that wiped out a quarter of the population by 1650. The peripheral territories of the Iberian peninsula were less hard hit, but in the early eighteenth century Spain's population still stood a full million below the 8.5 million it had attained in the 1590s.²

The population did not decline in northwestern Europe. Although the Southern Netherlands endured loss from both war and emigration in the 1570s and 80s, thereafter a recovery set in that lasted until the 1660s. In the Dutch Republic and in England a substantial population growth was continuous until the 1660s.³

In viewing these population patterns, we can carve western and central Europe into three zones (see Table 1). A Mediterranean zone, encompassing Iberia and Italy, recovered its early seventeenth-century losses only toward 1750. A central zone, encompassing France, Switzerland, and Germany, showed a modest growth over the 150-year period, most of it

Table 1. *Population of Europe (in millions)*

Zone	1600	1700	1750	1800
I. Mediterranean ^a	23.6	22.7	27.0	32.7
Index	100	96	114	139
II. Central ^b	35.0	36.2	41.3	53.2
Index	100	103	118	152
III. North and West ^c	12.0	16.1	18.3	25.9
Index	100	134	153	216
Total	70.6	75.0	86.6	111.8
Index	100	106	123	158

^a Spain, Portugal, Italy. ^b France, Switzerland, Germany.

^c England, Scotland, Ireland, Low Countries, Scandinavia.

coming, as in the Mediterranean, toward 1750. The third zone comprises the Low Countries, the British Isles, and Scandinavia. Here the mid-eighteenth-century population exceeded by half the 1600 levels. While nearly half of that growth had occurred by 1650, the century after 1650 was one of a distinctly diminished rate of growth, but not of utter stagnation. Were our data sufficient, a fourth zone could be distinguished in eastern Europe. The populations of Poland and Hungary almost certainly sustained a great decrease in the seventeenth century, but the timing and extent of the recovery are not known.

During the century and a half under review here, the European population grew by less than a quarter, at a long-term annual rate of only 0.14 percent, far below either the preceding or the following century. If this growth rate is unimpressive, what is impressive, and what profoundly affected economic life, was the redistribution of population. As Table 1 demonstrates, the northern and western zones gained relative to the rest of Europe. The decisive shift came in the fifty years after 1600, when the population of northern and western Europe rose from 50 to over 70 percent of that of the Mediterranean zone. Later in this volume more data will show that there also occurred a significant redistribution within the zones as types of cities and agrarian regions experienced quite varied fortunes.

Why did the long-term demographic expansion of the sixteenth century come to an end? Was the new trend a response to changed economic conditions or did it provoke such changes? The first step in answering these questions is to examine the birth and death rates, the immediate variables that determine population growth or decline. The classic connection between economic conditions and death rates, linked to the name of Thomas Malthus, predicts that a growing population is likely to outstrip the economy's ability to support it. The population's health is thereby endangered by famine and malnutrition. Could Europe have reached an

economic ceiling in the early seventeenth century in which a precarious balance between population and food supply was constantly threatened by inadequate harvests? Fernand Braudel, the historian of the Mediterranean basin, believes such a ceiling was attained in the 1580s, and E. Le Roy Ladurie, writing of the southern French province of Languedoc, explains the cessation of growth thereby invoking Malthusian crises. Indeed, detailed studies of individual villages and districts have identified demographic crises in this most densely populated of large nations. During the span of a few months or a year the death rate rose to a level several times higher than normal. The mortality struck suddenly although, in retrospect, it might have been predicted, for low grain reserves and a poor harvest combining to force prices upward often preceded the crisis. During this period the survivors, witnesses to the disaster, postponed their marriages, failed to conceive children, and, if they could, took to the road to flee the scene of tragedy. When the high mortality had passed social and economic life took steps to adjust: a spate of marriages and conceptions followed, and within a few years much - perhaps all - of the human loss had been made good.

Everyone could count on confronting this sort of experience in his lifetime, and many met their ends in them. However, these crises were not everywhere of equal severity. In grain-growing villages where social cleavages were pronounced and transport facilities primitive, demographic crises caused by harvest failure were most destructive. (This does not necessarily mean that they faced a true Malthusian situation; rather, they were particularly vulnerable to climatic accidents.) Many villages in northern France were of this type. But many more were able to cushion the blow through the existence of more varied economies and cheap transportation. In England (where the Poor Law of 1597 imposed on each community the obligation to support its poor) and the Low Countries (with ready access to the international grain

market), the death rate and the price of grain did not move together sufficiently to generate true crises of subsistence. This does not mean that they were not visited periodically by appalling mortality.⁴

Another factor forcing up the death rate is now accorded more importance: epidemic diseases - most notably bubonic plague, smallpox, typhus, and influenza. The general nutritional level of a population affects its ability to resist diseases, but epidemics struck all types of communities in good years and bad. The French province of Anjou suffered severe plague epidemics in 1583, 1605, and 1625, and dysentery in 1639 and 1707. Seville, the focal point of Spain's imperial economy, was struck in 1599-1600, 1616, and 1648-49. From the last of these epidemics it never recovered. In northern Italy the plagues of 1576-77 and 1630 created labor shortages and caused the flight of the well-to-do from the cities, thus compounding the problems of Italy's already vulnerable industries. On the other hand, the plagues that hit London and Amsterdam (those of 1623-25, 1635-36, 1655, and 1664 each killed over one-tenth of Amsterdam's population) appear to have been nothing more than temporary setbacks.

These plague epidemics, the most severe since the fourteenth century, cannot be tied directly to the state of the European economy. They had a life of their own and the affected communities were quite helpless in controlling them.⁵ Yet before we conclude that an outside force intervened to stop Europe's population growth, we must account for the fact that plague-inflicted losses in central Europe and the Mediterranean took generations to be recovered while in northwestern Europe they only briefly interrupted the growth of population. Moreover, the stagnation of population that set in after the 1660s occurred when plagues were disappearing from the European scene. The last great European plague epidemic, which struck Marseilles in 1720, was an isolated event. The other epidemic diseases continued to

rage, but their impact, in contrast to plague, was normally confined to restricted areas and restricted classes and age groups.

The other variable, the birth rate, was long regarded by demographers as standing at a physiological maximum before urbanized, industrialized societies arose in the nineteenth century. This view of unchecked fertility must be rejected for European populations in the seventeenth century. Fertility is now thought to have been quite sensitive to economic conditions. Detailed demographic studies have uncovered behavior consistent with the practice of conscious family limitation as far back as the early seventeenth century. Contraception was never a general practice in this period and, thus far, we are confident of its existence only in Geneva and several French and English villages.⁶ But fertility could also be reduced by delaying the age at marriage for women and by celibacy. Such a trend can be identified in many areas (see Table 2). As the marriage age rose from an average in the low twenties to one in the high twenties in the course of the seventeenth century, the number of children per marriage necessarily fell. For example, in three French villages women marrying between the ages of 20 and 24 gave birth to an average of 8.2 children during their lifetimes while those marrying between 25 and 29 had only 6.5 children. In another French village, as the marriage age rose the births per marriage fell from 5.7 in 1600-39 to 4.6 in 1720-59.⁷

These adjustments in marriage customs and family size are not yet fully understood, but they seem highly significant. After all, the society that requires perhaps a tenth of the population never to marry and that requires of the rest the postponement of marriage until the late twenties - and at the same time withholds the recognition of full adulthood from all but married couples - is imposing a great emotional and physical burden. Nowhere else in the world do we see such a set of customs; no evidence exists for it in ancient or medieval Europe, and modern industrial societies have also aban-

Table 2. Average age at first marriage for women

Colyton, England		Ducal Families, England		Elversele, Flanders		Amsterdam, Holland	
1560-1646	27.0	1330-1479	17.1	1608-49	24.8	1626-27	24.5
1647-1719	30.0	1680-1729	22.2	1650-99	26.9	1676-77	26.5
1720-1769	27.0	1730-1779	24.0	1700-49	28.0	1726-27	27.2
						1776-77	27.8
Geneva, Switzerland (Bourgeoisie)		Amiens, France (Poor; bourgeoisie)				Altopascio, Tuscany	
1550-1599	22.0	1674-1678	24.0	25.2	1625-1649	18.6	
1600-1649	24.9	1692-1697	24.9	26.3	1650-1699	20.4	
1650-1699	25.2	1721-1725	24.1	27.1	1700-1749	21.9	
1700-1749	27.0				1750-1784	25.5	

Sources: E. A. Wrigley, "Family Limitation in Pre-industrial England," *Ec. H. R.* 19 (1966), 82-109; T. H. Hollingsworth, "A Demographic Study of the British Ducal Families," *Population Studies* 11 (1957), 4-26; Paul Deprez, "The Demographic Development of Flanders in the Eighteenth Century," in D. V. Glass and D. E. C. Eversley, eds., *Population in History* (London, 1965), 608-30; S. Hart, "Historisch-demografische notities betreffende huwelijken en migratie te Amsterdam in de 17^e en 18^e eeuw," *Maandblad Amstelodamum* 55 (1968), 63-69; L. Henry, *Anciennes familles genevoises* (Paris, 1956); Pierre Deyon, *Amiens, capitale provinciale* (Paris, 1967); Francis B. McArdle, *Altopascio, 1587-1784: A Study in Tuscan Rural Society*, (Cambridge, forthcoming).

done this European marriage pattern. What sustained the European peoples in the observance of these customs?

Were the delayed marriage age and consequent smaller families a reaction to reduced employment opportunities in the seventeenth century? To the extent that marriages depended on the acquisition of land or a place in a trade, postponement would seem to be a fitting response to economic contraction or stagnation. But it seems unreasonable to use short-term changes in economic prosperity to explain what was plainly a long-term, relatively stable pattern of marriage behavior. Moreover, simple economic motives are an unlikely

explanation for the marriage behavior of the aristocracy, among whom late marriage and celibacy are known to have spread.

The English peerage, because of its high fertility, grew in number in the early seventeenth century. One necessary result was a downward social mobility among nonheirs which caused intense competitiveness and divisiveness among the British upper class. Among peers born between 1625 and 1675 fertility was much reduced, and among those born between 1675 and 1749 celibacy, later marriage, and reduced fertility, together with higher mortality, caused their numbers to fall absolutely. The political and social consequences proved beneficial (to the peers, at any rate). Upward mobility and reduced competitiveness among these aristocratic families contributed to the stability of English society during the Augustan Age of Aristocracy, while the more frequent dying out of male lines contributed to the concentration of large estates (via inheritance through heiresses). Much the same demographic trend has been observed among such disparate upper income groups as the bourgeoisie of Geneva, the gentry landowners of Friesland, and the Venetian nobility: a tendency to die out appears to have been general among aristocratic families all over Europe in the century after 1650.⁸

Just as small families among aristocrats could preserve and concentrate wealth ownership, delayed marriage among peasants not only relieved pressure on the land but also permitted single young men and women working as servants and apprentices to amass a bit of wealth before forming households of their own. The motives for late marriage remain less than clear, but it is very possible that this remarkable trend expresses a desire for a higher standard of living at least as often as a scarcity of employment opportunities.

The cessation of population growth in seventeenth-century Europe differs from the demographic reversal of the fourteenth century in this essential respect: it was in part the result of efforts of several social groups to control their

demographic and economic destinies, perhaps even to bring family size into accord with new concepts of well-being.

“In part” should be stressed in the last statement because Europeans did not yet have the means to control their population through a comprehensive population control mechanism. The seventeenth and eighteenth centuries claim our attention because crude forms of fertility control can be identified in many areas, but, as we have seen, no comparable control could be exercised over mortality. The fragile foundations of the economy rendered society vulnerable to elemental forces such as bacterial and rodent ecology and climate which could impose sudden shifts in the mortality level. These shifts might be temporary - an epidemic or subsistence crisis - but they could also be more enduring.⁹

Climate change is sometimes invoked to explain such long-term shifts in mortality. It appears that, besides yearly fluctuations in rainfall and average temperature, there existed (and exist) climatic cycles of longer duration (see Figure 1). Thus, the entire seventeenth century seems to have experienced a “little ice age” in which severe winters occurred with unusual frequency. The last decade of the seventeenth century stands out in northwestern Europe as an era of unusually wet summers and cold winters. In this area excessive moisture was the chief threat to harvests; perhaps, then, we should not be surprised to find that French tithe receipts fell abruptly in the 1680s and that severe harvest failures occurred in 1693-94 and 1709. In the course of the eighteenth century moderate weather conditions appeared with much greater frequency. Indeed, the good harvests of the 1720s and 30s in England have been called a “bounty of God” which, by depressing food prices, stimulated consumer demand for manufactures. But in this case the bounty of God did not extend to mortality: death rates rose in every decade from 1710 to 1740.¹⁰

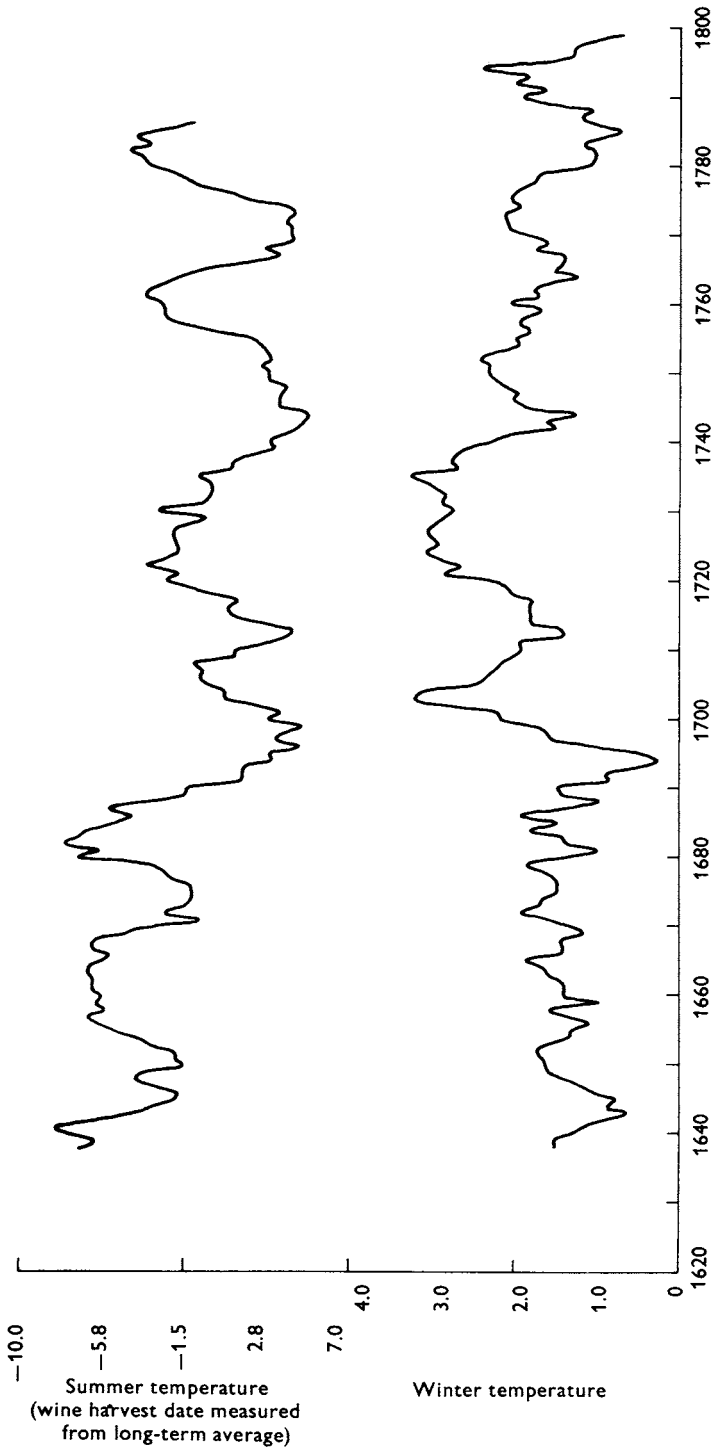


Figure 1 Climate trends in northwestern Europe
 French average summer temperature (estimated from wine-harvest dates) and Dutch average winter temperatures (°C) are both expressed in nine-year moving averages. (Vendage after Le Roy Ladurie, *Times of Feast, Times of Famine.*)

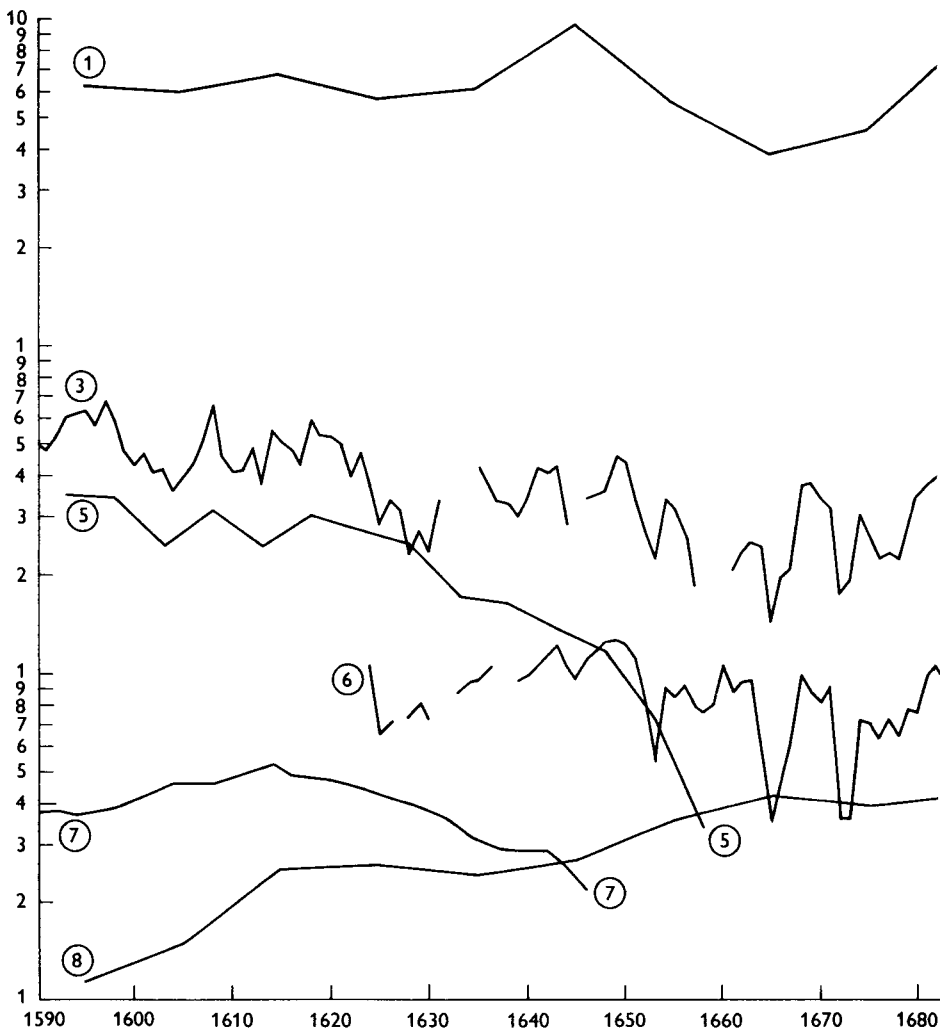
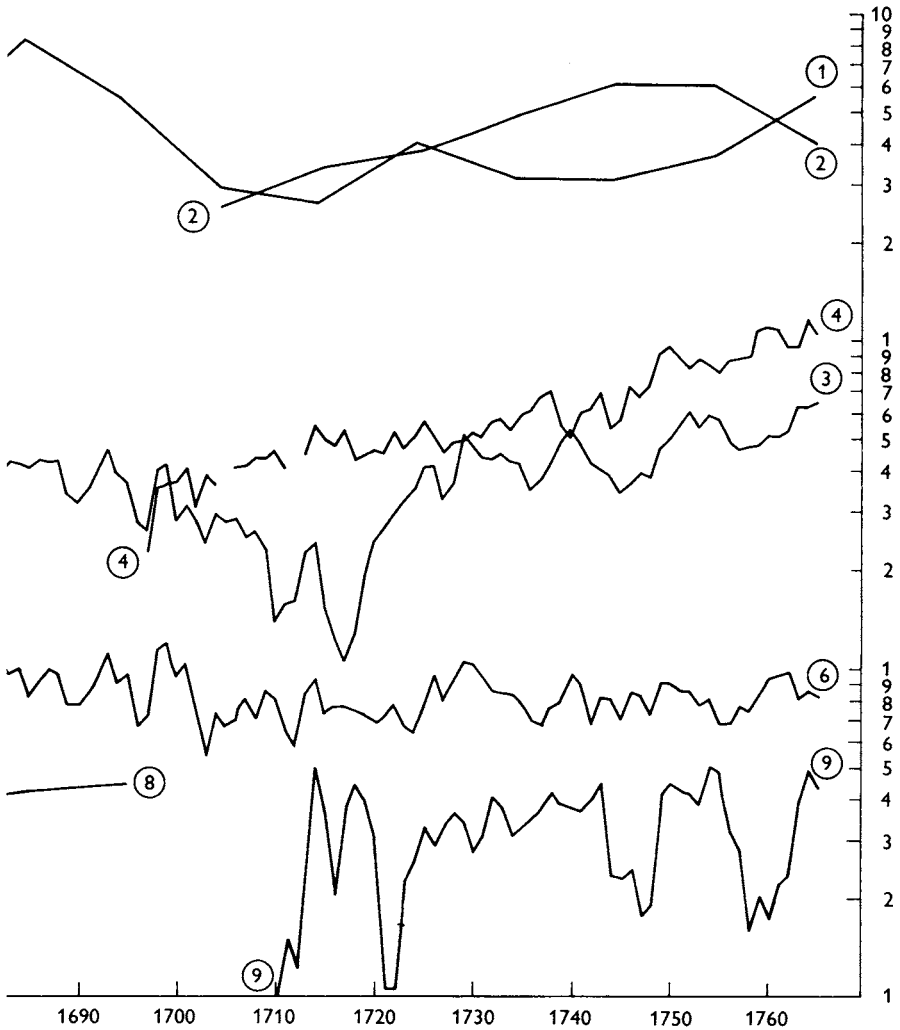


Figure 2 European trade indicators

- 1 Grain shipped westbound through the Danish Sound expressed in ten-year averages. *Scale:* 10,000s of lasts of grain; 1 last equals approximately 2 tons.
- 2 Grain exported from England expressed in ten-year averages. *Scale:* same as above.
- 3 Ships passing through the Danish Sound, both westbound and eastbound, annual data. *Scale:* 1000s of ships.
- 4 English domestic exports expressed in official values, annual data. *Scale:* millions of pounds sterling, by official value. Early eighteenth-century prices were used to aggregate values of the various exported commodities. Consequently, the trend reflects changes in the volume of exports more accurately than it reflects changes in actual value.



- 5 Silver imported at Seville expressed in five-year totals. Scale: 10s of millions of pesos (of 450 maravedis).
- 6 Revenue of "convooien" levied upon ships entering and departing Amsterdam, annual data. Scale: 100,000s of guilders.
- 7 Tonnage of New World shipping entering and departing Seville expressed in thirteen-year moving averages. Scale: 10,000s of tons of shipping volume.
- 8 Ships departing Europe for Asia expressed in ten-year totals. Scale: 100s of ships.
- 9 Ships entering Marseilles (except grain ships), annual data. Scale: 100s of ships.

Sources for the above data will be found at the foot of the following page. For data on yet another trade indicator, the average annual number of slaves shipped to the New World, see Table 3, p. 140.

Economic trends

Population trends were not alone in entering a new phase in the first half of the seventeenth century. Price, trade, and industrial output trends, to the extent they are known, display the same movement (see Figure 2). The spectacular inflation of prices in the sixteenth century leveled off in the early seventeenth century and began to decline - as early as 1637 in Milan and as late as 1663 in Danzig. These trends refer to averages, of course; prices for individual commodities showed considerable variation, the importance of which will be considered later.

Often associated with the price trend is the volume of Spanish silver imports from Mexico and Peru. If it were true, as many contemporaries believed, that the inflow of silver stood behind the price inflation, then the diminution of that inflow would dampen prices. Thus, great importance has long been attached to the decline of silver imports which began in 1625.

Sources of data in Figure 2 (pp. 14-15)

- 1 Nina Z. Bang, *Tabeller over Skibsfart og Varetransport gennem Øresund, 1497-1660*, 3 vols. (Copenhagen, 1906-22) and Nina Z. Bang and K. Korst, *Tabeller over Skibsfart og Varetransport gennem Øresund 1661-1783 og gennem Storebaelt 1701-1748*, 3 vols. (Copenhagen, 1930-45).
- 2 David Ormrod, "Anglo-Dutch Commerce, 1700-1760," Ph. D. diss., Cambridge University, 1973, p. 406. These figures include wheat, rye, barley, and malt.
- 3 Bang, *Tabeller over Skibsfart*.
- 4 B. R. Mitchell and Phyllis Deane, *Abstract of British Historical Statistics* (Cambridge, 1962), pp. 279-80. These figures are for domestic exports only; they exclude re-exports.
- 5 Earl J. Hamilton, *American Treasure and the Price Revolution in Spain 1501-1650* (Cambridge, Mass., 1934), p. 34.
- 6 J. C. Westermann, "Statistische gegevens over den handel van Amsterdam in de zeventiende eeuw," *Tijdschrift voor Geschiedenis* 61 (1948), 3-15; Johan de Vries, *De economische achteruitgang der Republiek in de achttiende eeuw* (Amsterdam, 1959), pp. 188-90.
- 7 Huguette and Pierre Chaunu, *Séville et l'Atlantique* (Paris, 1955-60).
- 8 Niels Steengaard, "European Shipping to Asia, 1497-1700," *Scan. Ec. H. R.* 18 (1970), 9.
- 9 Charles Carrière, *Négociants Marseillais au XVIII^e siècle* (Marseilles, 1973), pp. 1046-47.

Whatever its impact on prices (which will be considered in more detail later), the inflow of silver was undoubtedly closely connected to the volume of Spain's trade with the New World. Various factors, including the exhaustion of mines, the tragic decline of the Indian population, and the growing self-sufficiency of the New World economy, caused both the New World demand for European goods and the European supply of silver to fall. The Seville-Atlantic trade peaked in 1608-10 and began a steady descent after 1622.¹¹

This was not the only trade route to suffer. The crisis of the colonial economy brought stagnation to the slave trade. The quarter century after 1625 was the only one between 1500 and 1750 in which slave shipments from Africa to the New World did not grow. The East India trade, after a generation of spectacular growth, made no further gains in volume between 1620 and 1650. Within Europe the Baltic trade turned sharply downward after 1624, as did the overland cattle trade from Denmark to the Low Countries and the Rhineland.¹²

The crisis in international trade could not fail to be reflected in the industrial sector of the European economy. Beginning at the turn of the century, northern Italy, for centuries a major textile producer, saw its industries sink into insignificance. In Flanders, the output of the Lille woolens industry fell by half in the decade after 1635 while the worsted center of Hondschoote, after making a recovery from the ravages of the war with Spain, inaugurated a definitive and lasting retreat into bucolic obscurity in 1638. The nearby French textile centers of Beauvais, Amiens, and Reims began to decline in the decade after 1625, while across the channel in England woolen cloth exports, which accounted for nearly all English exports, declined sharply in the late teens and twenties (see Figure 3).

The great European expansion of the sixteenth century was coming to an end. Even university enrollments, which had grown explosively in nearly every part of Europe, began a

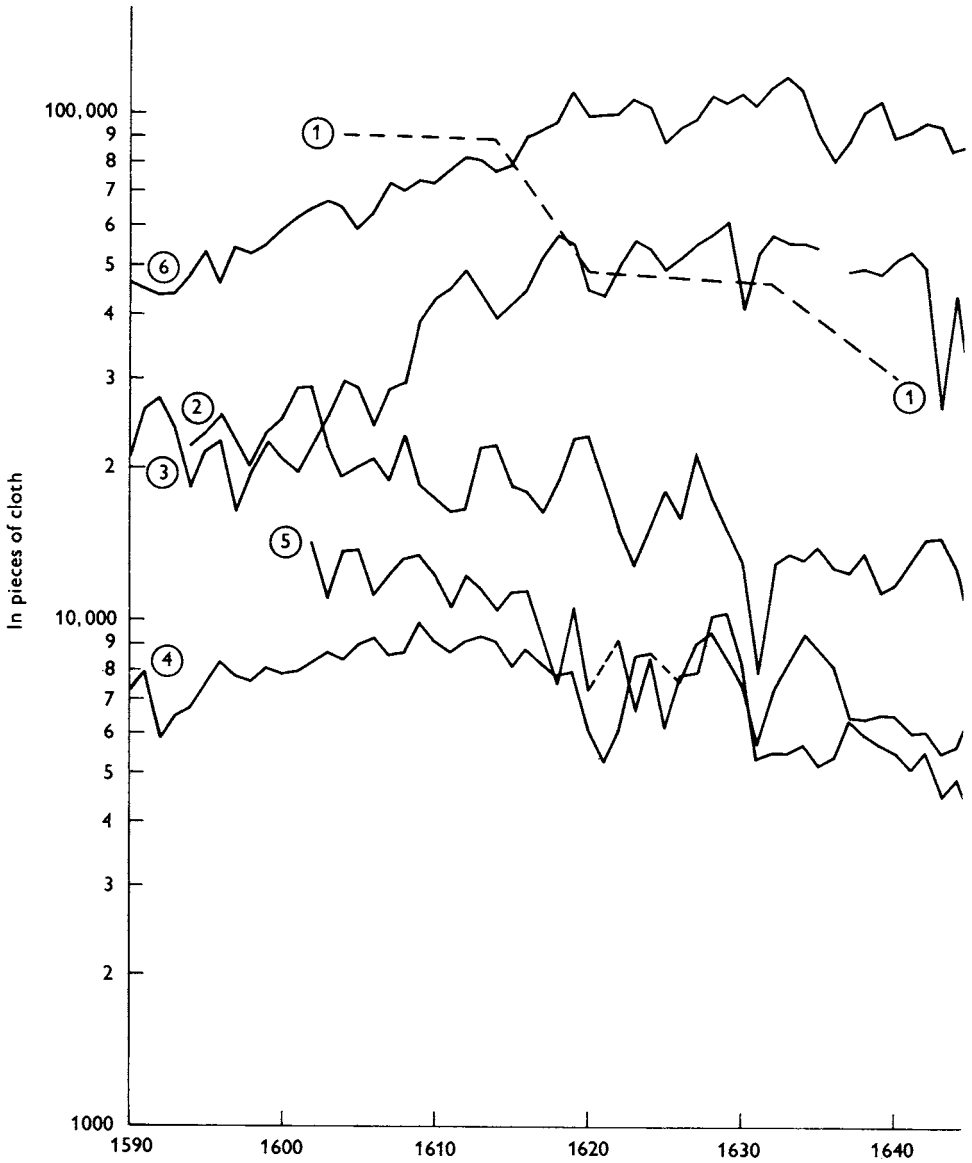
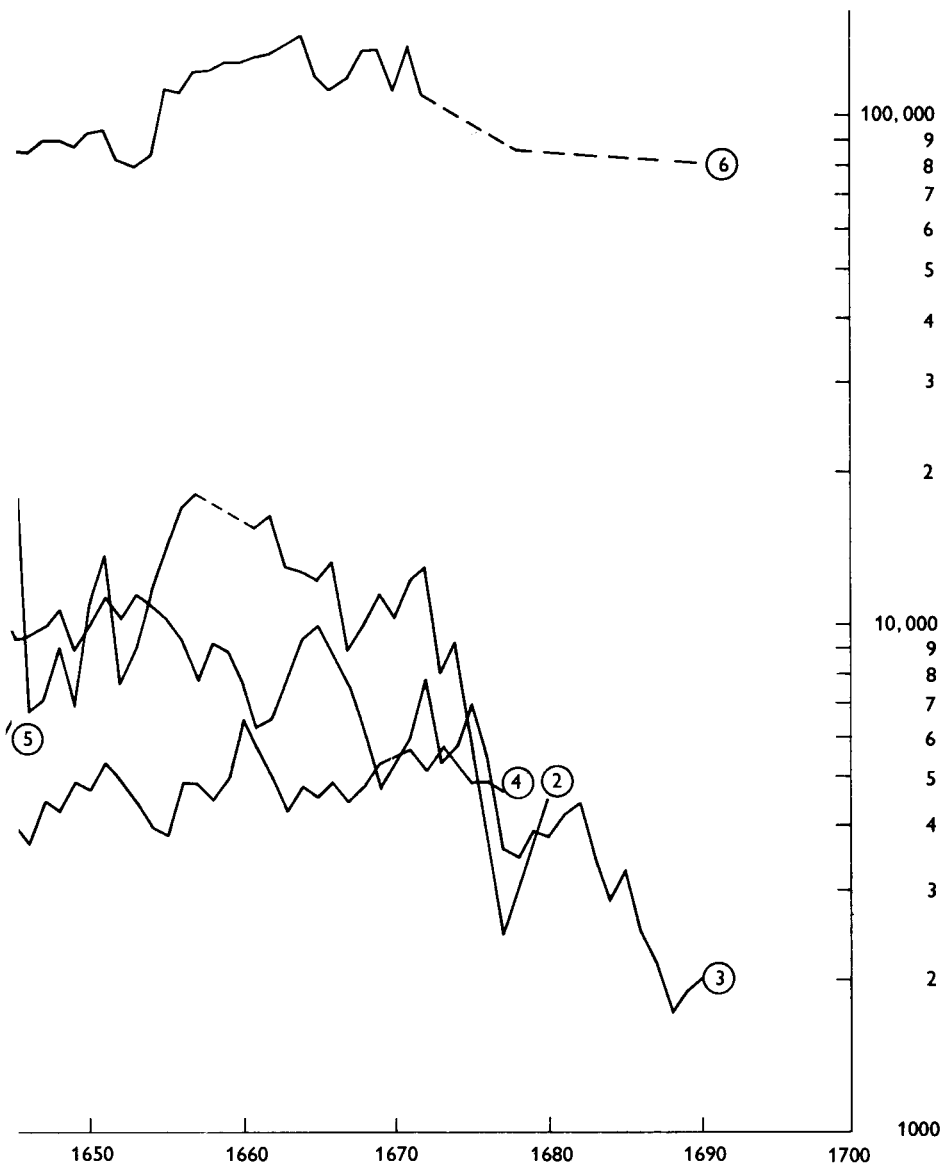


Figure 3 Trends in textile production

- 1 Export of undressed shortcloth from London in five isolated years.
- 2 Woolen cloth production in Hondschoote.
- 3 Woolen cloth production in Venice.



4 Woolen cloth production in Lille.

5 Woolen cloth production in Florence.

6 Woolen cloth production in Leiden.

Sources for data will be found at the foot of the following page.

permanent decline after 1620. Could it be that in these more somber times people took to heart the oft-repeated complaint that schools flooded society with unemployed *literati* full of subversive notions?

While there was no single event that ushered in this new phase of European economic history, a good candidate for the title of turning point is the trade crisis of 1619-22. Its immediate cause seems to have been an inventory crisis. That is, large unsold stocks of goods tied up the capital of merchants and forced reductions in orders for industrial production. This problem was compounded, particularly in central Europe, by large-scale currency manipulations. Thereafter, the worsening situation created by the Thirty Years' War, weak colonial markets, and persistent currency experimentation - including debasements, changed gold-silver price ratios, and supplemental copper coins - all conspired to prevent full recovery.¹³ In the years that followed, one after another of the indicators described above turned downward. Most stayed depressed until at least the mid-century point. Thereafter, the colonial trades in both east and west revived while industrial output in England showed clear signs of renewed growth. Toward the end of the century Brazilian gold imports were again augmenting Europe's money supply, and a few more signs of trade revival could be found.

Sources of data in Figure 3 (p. 18-19)

- 1 Barry Supple, *Commercial Crisis and Change in England 1600-1642* (Cambridge, 1959), p. 137.
- 2 E. Coornaert, *La draperie-sayerterie d'Hondschoote* (Paris, 1930), pp. 494-95.
- 3 Domenico Sella, "The Rise and Fall of the Venetian Woollen Industry," in Brian Pullan, *Crisis and Change in the Venetian Economy* (London, 1968), pp. 109-10.
- 4 Pierre Deyon and Alain Lottin, "Evolution de la production textile à Lille aux XVI^e et XVII^e siècle," *Revue du Nord* 49 (1967), 30-3.
- 5 Ruggiero Romano, "A Florence au XVII^e siècle, Industries textiles et conjoncture," *Annales* 7 (1952), 32.
- 6 N. W. Posthumus, *De geschiedenis van de Leidsche lakenindustrie* (The Hague, 1939), pp. 129, 930-31.